DOCTORAL THESIS

An investigation of risk management practices in the health and fitness facilities in Queensland: Minimising the likelihood of legal liability

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AN INVESTIGATION OF RISK MANAGEMENT PRACTICES IN THE HEALTH AND FITNESS FACILITIES IN QUEENSLAND: MINIMISING THE LIKELIHOOD OF LEGAL LIABILITY

By

BETÜL SEKENDİZ

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ABSTRACT

The Australian health/fitness industry is an important contributor to the national preventative public health strategy against obesity and associated health risk factors such as coronary heart disease, diabetes, various forms of cancer, osteoporosis and mental health problems (Commonwealth of Australia, 2010; Mathers et al., 2000). Although regular physical activity can significantly reduce obesity and associated health risk factors, epidemiological studies show that vigorous exercise can trigger cardiac events, especially in habitually sedentary people with known or unknown coronary artery disease (Corrado et al., 2006b). Furthermore, participation in physical activity by persons with obesity and diabetes is associated with an increased risk for musculoskeletal injuries, joint injuries, osteoarthritis, and disability (Brukner and Brown, 2005; Wilder and Cicchetti, 2009).

A recent Victorian study drew attention to the concerns of the exercise participants (Finch et al., 2009b) of multipurpose recreational facilities that showed lack of safety policies and practices (Finch et al., 2009a). According to studies conducted in the United States health/fitness facilities that show low cardiac emergency preparation, lack pre-activity screening procedures and do not follow risk management recommendations and policies published by the leading national professional organizations (Connaughton, Spengler and Zhang, 2007) expose themselves to serious risk of litigation (Eickhoff-Shemek, 2010). In this regard, it is suggested that it is crucial for health and fitness facilities to implement effective risk management programs to provide reasonably safe services to their customers.

In contrast, following changes to the Australian law in 2002 that was prompted by a perceived crisis in public liability insurance and an emerging ‘litigation culture’, recreational service providers in Australia have been given the right to contract out of their implied duty of care to their customers by use of exclusion clauses that can limit or exclude liability for negligence and breach of an implied warranty that services would be provided with reasonable care and skill. However, there were concerns that this blanket protection would cause recreational service providers to refuse to invest

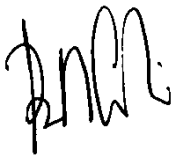
in injury prevention practices and risk the safety of their consumers (Australian Consumer and Competition Commission, 2005; McDonald, 2005). Therefore, proper implementation of risk management programs by recreational service providers to effectively prevent injuries and minimise subsequent liability claims was stressed (Standing Committee on Recreation and Sport, 2002). Despite the fact that the health/fitness industry represents a significant portion of the recreational services offered in Australia, little is known about the implementation of risk management practices in health/fitness facilities. In this light, the main purpose of this study was to investigate implementation of risk management practices in the health/fitness facilities in Queensland. Secondary aims of this study were: (a) to identify the potential sources of legal liability in the health/fitness industry, which will help (b) to develop a risk management assessment questionnaire for health/fitness facilities.

The data was gathered from the managers of health/fitness facilities in Queensland using the self-developed and pilot tested Health and Fitness Industry Risk Management Questionnaire (HFRMQ). The statistical analysis of the data was conducted using descriptive statistics and non-parametric tests. The major findings of the study indicated that health/fitness facilities in Queensland had low adherence to risk management practices related to 'emergency plans', 'inspections' and 'staff', whereas risk management practices such as 'waivers' and 'insurance' were among the most implemented and valued risk management practices. However, neither waivers nor insurance can prevent injuries or adverse health outcomes that can occur as a result of negligently provided services in health/fitness facilities. Furthermore, as recent case law analysed in this study illustrates, waivers may not always be enforceable, and hence fail to prevent a successful lawsuit. In this light, the discussion and conclusions of this study highlights the need for health/fitness facilities to develop and implement effective risk management programs to provide reasonably safe services in the first place, which in turn minimises the risk of legal liability claims.

DECLARATION

This thesis is submitted to Bond University in fulfilment of the requirements of the degree of Doctor of Philosophy. This thesis represents my own original work towards this research degree and contains no material which has been previously submitted for a degree or diploma at this University or any other institution, except where due acknowledgement is made.

Signature: *Date*: 21 December 2011



Betul Sekendiz

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I dedicate this dissertation to my family for their gracious encouragement and support that enables me to pursue my ambitions in life.

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CHAPTER I

This thesis is not intended to provide legal advice; and
it is not the author`s intention that this thesis be used to determine whether organizations or individuals have fulfilled their legal duties or satisfied the applicable standard of care in every circumstance.
Individuals and organizations are hereby advised that they should consult a lawyer to take specific advice prior to implementing any risk management practice.

INTRODUCTION

Since the fitness industry took America by storm in the 1970s (Parks, 1990), the global report of the International Health, Racquet & Sportsclub Association (IHRSA) (a not-for-profit trade association representing the health/fitness club industry worldwide) highlighted that the health/fitness club industry continues to expand (IHRSA Global Report 2010, 2010). In 2009, the health/fitness club industry generated nearly US$70 billion in total revenue, serving nearly 120,000,000 members at more than 128,000 facilities worldwide. In the United Kingdom, in 2007 the health/fitness industry was the most profitable it had been the last twenty years and continued to grow in 2010 with its estimated revenue at £3.80 billion, a 2% increase over the previous 3 years (The Leisure Database Company, 2007; 2010). In Europe,

the health/fitness industry is worth over €20 billion, which is twice the value of the professional European football industry (European Health &Fitness Association, 2007). In Australia, the health/fitness industry generated more than AU$2.2 billion in total revenue in 2009 (IHRSA Global Report 2010, 2010) and contributed an estimated AU$873 million to the Australian economy in 2007-08. This exceeded the overall growth in the national economy in years 2004-05 and 2007-08 (Access Economics, 2009).

In contrast to the overall growth of the health/fitness industry, obesity is becoming a global epidemic. In Australia, the 2007-08 National Health Survey found that 68% of adult men and 55% of adult women were overweight or obese (Australian Bureau of Statistics, 2009). This estimate showed a steady increase from 64% and 49% in 1995 in males and females respectively (ABS, 1997; 2006a). According to the findings of recent research 3.5 million middle aged (45-64 years old) Australians are overweight or obese and are at high risk of a cardiovascular (CV) event and premature death (Murphy et al., 2006; Stewart et al., 2008). Finally, according to the latest report of the Organisation for Economic Co-operation and Development (OECD) (2010), Australia's obesity/overweight rate has been growing faster than any other OECD country's over the past 20 years and by 2020 obesity rates in Australia will have grown another 15% and will be the third fattest nation after England and the United States.

Obesity poses a significant burden on the national economy. It has been projected that the cost of CV related hospitalisations will be AU$2.93 billion over the next 20 years as a result of excess weight (Stewart et al., 2008). It has been suggested that a loss of 10kg over 10 months for every middle-aged Australian who is currently overweight or obese would have the potential to save between AU$472 - AU$1,272 million in health care costs over a 20 year period (Stewart et al., 2008). In line with this, the National Preventative Health Taskforce has proposed preventative intervention measures including provision of tax incentives or rebates for gym memberships in the fight against obesity (Minister for Health and Ageing, 2009).The Commonwealth Government has not recommended introduction of such a taxation

system yet; however, the Australian Government has recognised the Australian health/fitness industry as an important contributor to the national preventative public health strategy (Commonwealth of Australia, 2010).

Although regular physical activity can significantly reduce the risk of cardiovascular diseases, diabetes, various forms of cancer, osteoporosis and mental health problems (Mathers et al., 2000), epidemiological studies show that vigorous exercise can trigger heart attacks and sudden cardiac death (SCD), especially in obese (Murphy et al., 2006) and habitually sedentary people with known or unknown coronary artery disease (Paterson, 1996; Balady et al., 1998; Corrado et al., 2006b; Albert et al., 2000). Furthermore, participation in physical activity by obese people may also result in musculoskeletal injuries, joint injuries, osteoarthritis, and disability (Brukner and Brown, 2005; Wilder and Cicchetti, 2009). As Townsend (2007, p.6) contends this is a "dilemma" that goes against the purpose of the public health policy to encourage those who are overweight and obese to become healthier.

In the United States, the national public health agenda has been promoting and emphasizing the benefits of moderate to vigorous physical activity for individuals affected by the detrimental effects of sedentary living such as obesity and associated health risk factors since 2001 (US Department of Health and Human Services, 2001). As a result, more people at risk of cardiac events or other medical risks have started to exercise in health/fitness facilities that has led to concern related to the safety of the health/fitness services provided. Leading professional organizations have published standard statements to minimise risk factors in health/fitness facilities by focusing on cardiovascular screening, staffing, emergency plans and use of automated external defibrillators (AEDs) in particular (Balady et al., 1998; Balady et al., 2002). Studies that investigated the implementation of such statements highlighted that many health/fitness facilities demonstrated low cardiac emergency preparation, lacked pre-activity screening prior to exercise, and did not follow published risk management recommendations and policies (Connaughton, Spengler and Zhang, 2007; Herbert et al., 2007).

However, cardiac events and related emergency situations are not the only risks that the Australian health/fitness industry has to cope with. One in 17 Australians experience sports related injuries each year costing the economy AU$1.5 billion (Egger, 1991; Medibank Private, 2004). In 2004-05 sports activities accounted for 15% of injuries in the 0-14 years of age group (Australian Bureau of Statistics, 2006b). In persons 15 years old and over, musculoskeletal injuries were the most commonly reported long-term conditions. This accounted for a quarter of all long-term conditions due to injury. Furthermore, injury was reported as the cause by 31% of those with back/pain problems, or disc disorders.These figures add to the costs associated with professionals such as physiotherapists and chiropractors that accounted for 7% of total allocated health expenditure in 2000-01 (Australian Institute of Health and Welfare, 2004).

Since 1994, injury prevention has been designated as one of the first four National Priority Health Areas in Australia (Commonwealth Department of Human Services and Health, 1994). In 1997, the National Sports Safety Framework strongly advised that an injury risk management approach be adopted to reduce the risk of adverse health outcomes associated with sport and other physical activities (Finch and McGrath, 1997). However, most of the studies conducted for injury prevention and risk management promotion strategies have been at the club level (Abbott et al. 2008; Donaldson, Forero and Finch, 2004; Finch and McGrath, 1997). The Australian health/fitness industry has received minimal attention by local governments and researchers alike. One Victorian study highlighted the heavy reliance of multipurpose recreational facilities on the directions of the facility insurance brokers for implementing safety practices, yet these facilities showed lack of safety policies and practices (Finch et al., 2009a). The same study revealed that while fitness/health, weight loss and rehabilitation were the main reasons people participated in exercise programs provided by these health/fitness facilities (Finch et al., 2009c), safety and lack of safety related measures were reported to be a major concern for these people (Finch et al., 2009b).

The uncertainty surrounding safety policies and practices in the health/fitness facilities in Australia not only endangers the health and safety of the community, but exposes health/fitness professionals to the serious risk of legal liability devaluing the reputation of the fitness industry. In 2010, building and enhancing the 'reputation' of the fitness industry has been the key strategic priority of Fitness Australia (Fitness Australia Annual Forum, 2010).

Over the last decade, the reputation of the fitness industry has been damaged due to (1) fair trading (contractual) and (2) safety issues (as demonstrated in: *Belna Pty Ltd v Irwin* , 2009; *David Michael Wilson v Nilepac Pty Limited* (Crows Nest) , 2009; *Dorahy`s Fitness Centre Pty Ltd v Buchanan*, 1996; *Marshbaum v Loose Fit Pty Ltd and Anor*, 2010; *Neill v Fallon* , 1995) that have adversely affected consumer confidence in the industry and attracted negative media commentary (*A Current Affair*, 2010; *Insight*, 2010). In order to protect the customers 'Fitness Industry Codes of Practice' have been established under the 'Fair Trading' regulations in each State and Territory over the past decade. However, these Codes are not uniform and lack important principles of safety standards of programs and services delivered by health/fitness facilities and professionals.

Studies show that health/fitness clubs with low cardiac emergency preparation, lack pre-activity screening procedures and do not follow risk management recommendations and policies published by the leading national professional organizations to ensure health and safety of their sport participants (Connaughton, Spengler and Zhang, 2007) expose themselves to serious risk of litigation by breaching the legal standard of care expected of them. In order to successfully prevent and cope with risks of injuries and adverse health outcomes, and subsequent legal liability, health/fitness facilities need to implement sound risk management programs based on an understanding of the implications of the current laws and regulations. For this purpose, the following section provides a summary of the recent changes to the Australian tort law relevant to the health/fitness service providers.

Tort Reforms and Laws of Negligence in Australia

In late 2002, Australian tort law underwent significant changes by the Tort Reforms as a result of perceived problems in the tort system. Firstly, there had been suggestions that the 'no win - no fee' campaigns of legal advisors led to a more litigious community (Kehl, 2002). In this regard, it was suggested that the costs of insurance premiums were forced to rise in order to cover the large damages awarded by the courts. Secondly, when Australia`s second biggest insurance company HIH collapsed in March 2000 and was placed in liquidation, the insurance market was no longer required to compete against the lowest premium provider (Owen and Helmore, 2004). Thirdly, the terrorist attacks in the United States by September 11, 2001 led the insurance companies to revise their policies in regard to man-made catastrophes, such as those caused by terrorism (Kehl, 2002).

On 27 March 2002, the Parliamentary Secretary to the Treasurer requested Australian Competition and Consumer Commission (ACCC) to update the ACCC's March 2002 'Insurance industry market pricing review' (Australian Consumer and Competition Commission, 2002a). The 'Second insurance industry market pricing review' (Australian Consumer and Competition Commission, 2002b, pp. 61-62), not only updated market performance and premium information, but analysed the public liability and professional indemnity insurance sectors. In line with the ACCC`s first review and the Trowbridge report to the ministers (Trowbridge Consulting, 2002), many insurers attributed the increasing claims costs to increased awareness in the community as to their rights resulting in higher numbers of claims. In industries primarily involved in outdoor recreation and adventure tourism the rise in the premium increases varied from 40% to 900% (ACCC, 2002b) and many community groups and recreational activities across the country were under threat of closure or in fact closed (Senate Economics References Committee, 2002, pp.10-13).

As a result of the perceived crisis in public liability insurance and the emerging 'litigation culture', which was later criticized for having no empirical foundation (Field, 2008; Wright, 2006), the Commonwealth, State and Territory governments appointed the *Negligence Review Panel* to review the law of negligence

in July 2002. The Review's primary purpose was to "examine a method for the reform of the common law with the objective of limiting liability and quantum of damages arising from personal injury and death" (Ipp et al., 2002, p.ix). The Review also examined the interaction of the *Trade Practices Act 1974* (Cth) (TPA) (**note:** *as effective of 1 January 2011, the TPA and the relevant Fair Trading Acts and regulations in States and Territories have been consolidated by the Competition and Consumer Act 2010 (CCA), Schedule 2 of which sets out a uniform Australian Consumer Law)* with the common law principles of the law of negligence. Consequently, amendments to Australian law were made, although not uniformly, particularly in the areas of the consumer protection provisions of the TPA as well tort law under the various state 'Civil Liability Acts'(Australian Capital Territory: *Civil Law (Wrongs) Act 2003* (ACT); New South Wales: *Civil Liability Act 2002* (NSW); Queensland: *Civil Liability Act 2003* (Qld); South Australia: *Civil Liability Act 1936* (was the *Wrongs Act 1936*) (SA); Victoria: *Wrongs Act 1958* (Vic); Western Australia: *Civil Liability Act 2002* (WA); Tasmania: *Civil Liability Act 2002* (Tas)) (Dietrich, 2005).

One aspect of the tort reforms concerned recreational service providers` right to use exclusion clauses under the *Trade Practices Act (TPA) 1974* s 68B (**note:** *similar provisions are now found under CCA s139A*) and assumption of risk defences in various Civil Liability Acts (*Civil Liability Act* 2002 (NSW) Pt 1 Div 4 ; *Civil Liability Act* 2003 (Qld) Pt 3 Div 3; *Civil Liability Act* 1936 (SA) Pt 6 Div 3; *Civil Liability Act* 2002 (WA) Pt 1A Div 6; *Civil Liability Act* 2002 (Tas) Pt 6 Div 4) to preclude or limit personal injury claims that result from recreational service providers` breaches of contract or negligent conduct in providing such services. However, the provisions of the TPA were criticized for reducing consumer protection in considerably more situations than actually was intended by the Negligence Review Panel (Ipp et al., 2002) and the Parliament (The Parliament of the Commonwealth of Australia, 2002) due to the wide definition of the 'recreational services' under the TPA s 68B that "goes beyond including activities which are inherently risky to include activities which are not." (Haly, 2003, p.6) The legislative changes to the

Civil Liability Acts were also criticized for not according with the recommendations of the *Negligence Review Panel* (Ipp et al., 2002) and being harsh as greater assurance was given to recreational service providers than was given to injured consumers and children in particular (Dietrich, 2005; Field, 2008; McDonald, 2005).

Data examining the trends in personal injury litigation (excluding motor and workplace accident claims) in Australian State and Territory courts before and after the tort reforms showed a substantial decline in personal injury claims by 60% in 2004-05 (Wright, 2006). The practical implications of the tort reforms on the law of negligence were also investigated by the ACCC (Australian Consumer and Competition Commission, 2005). Data was gathered from a sample of eight public liability insurers representing 71% of the industry. Professional indemnity figures gathered from 5 participating insurers (representing 50% of the industry) showed that premiums fell about 4% for both public liability and professional indemnity insurance. However, whether the fall in the premiums was due to increased competition among the insurance companies or due to the tort reforms encouraging new insurers to get into the Australian market is uncertain.

The report prepared by the ACCC also indicated that while the frequency of claims had declined from over 16% of total policies in 2001 to about 12% in 2004, the average size of out of court settlements showed a steady increase reaching over 60% of total policies in 2004 (ACCC, 2005, p.25). An out of court settlement is an agreement between the parties in a lawsuit, reached either before or after court action begins (Encyclopaedic Australian Legal Dictionary, 2011). Generally, both sides have a strong incentive to settle to avoid the costs (such as legal fees, finding expert witnesses, etc.), the time and the stress associated with litigation. From this perspective, the rise in the number of settlements may have resulted from the high cost of claims to the plaintiffs as well as to the defendants. From another perspective, the rise in the number of settlements may have resulted from the restriction on the recovery of the legal compensation claims. For example, in Queensland amendments in the *Personal Injuries Proceedings Act* 2002 (Qld) restrict the rights of the injured persons to recover costs for less than AU$50,000. Hence, the fact that there are fewer

claims may not necessarily mean that there are fewer people who are getting injured. As Field (2008, p.82) contended "…the injured parties have not vanished into thin air. They have simply been deprived of the ability to make a claim against those whose negligence caused their loss."

The Standing Committee on Recreation and Sport (SCORS), which comprises the CEOs of government agencies responsible for sport and recreation in all Australian jurisdictions, commissioned a review of issues associated with insurance for Australian sport and recreation organisations (Standing Committee on Recreation and Sport, 2002). The review highlighted that successfully implemented risk management plans can result in fewer injuries and help decrease insurance premiums due to minimised liability claims against a sporting organisation's insurance policy. Key findings from a survey of a sample of national sport organisations (NSOs) and state sport associations (SSAs), state sports federations, outdoor recreation operators, sport organisations for people with disabilities in Australia indicated that a majority of survey respondents had a formal 'risk management plan' in place that had a positive impact on their insurance premiums (SCORS, 2002). Parenthetically, the 2008 Queensland Outdoor Industry Survey (Queensland Outdoor Recreation Federation, 2008) indicated that organizations found having a 'risk management plan' most useful in decreasing their insurance premiums. However, there was a real concern amongst sport and recreations organisations (S&ROs) and insurers alike that the risk management principles and policies of NSOs and SSAs were not always being properly implemented (SCORS, 2002). Therefore, it was stressed that sport organisations that do not properly implement risk management programs to prevent injuries may be more likely to find it hard to obtain insurance at affordable prices, if they can find it at all (SCORS, 2002). For these reasons, it is of vital importance that health/fitness facilities take the necessary precautions to run safe and responsible businesses by employing sound risk management programs irrespective of the recent tort reforms that have given recreational service providers the right to preclude or limit personal injury claims (Coonan, 2002).

1. Purpose of the Study

Driven from the need for and lack of knowledge about the implementation of risk management programs in the Australian health/fitness industry to maintain the safety and well-being of exercise participants the main purpose of this study was to investigate implementation of risk management practices in the health/fitness facilities in Queensland. Secondary aims of this study were: (a) to identify the potential sources of legal liability in the health/fitness industry, which will help (b) to develop a risk management assessment questionnaire for health/fitness facilities.

2. Rationale for the Study

There are both theoretical and practical reasons for conducting this study. On a theoretical level, identification of the current risk management practices and status of legal liability claims in the Australian health/fitness industry will provide crucial information about how the likelihood of legal liability of health/fitness facilities in Australia can be minimised while increasing the safety of the services that they provide through the implementation of risk management practices. From a practical perspective, developing a risk management assessment questionnaire for the health/fitness industry will assist in determining the risk management practices of the health/fitness facilities in Australia and provide guidance to the health/fitness facility operators in developing effective risk management programs.

3. Research Questions

The research questions of this study were developed according to the five-step risk management framework of the Australian/New Zealand Standard on Risk Management AS/NZS 4360:2004 (StandardsAustralia, 2004) for establishing the context, identification, analysis, evaluation, and treatment of risks. There were several reasons for using the AS/NZS 4360:2004 as the preferred framework of this study. First, the Australian Sport Council (ASC) has adopted the 1999 edition of the Standard on Risk Management (AS/NZS 4360:1999) as the risk management approach which was documented in the work book entitled ‘Risk Management for

Directors and Board Members of a National Sporting Organisation' (Australian Sport Council, 2002). Second, sport and recreation clubs and facilities in Australia are responsible to have a comprehensive risk management framework to identify risks and to eliminate or reduce their impact in the workplace based on the Standard on Risk Management AS/NZS 4360:2004 as part of a Safety Management System's (SMS) approach to Occupational Health and Safety (OH&S) legislation.

The research questions of this study under the five-step framework of the AS/NZS 4360:2004 were as follows:

Establishing context

1) What are the type, size, member population and registration status of health/fitness facilities?

2) What are the demographics of the health/fitness facility managers?

3) What is the status of risk management practices of health/fitness facilities?

4) What is the status of legal claims in the health/fitness facilities in Queensland?

Identification

5) Do managerial demographics play a role in the risk management practices of health/fitness facilities?

6) Does registration with Fitness Australia affect risk management practices in health/fitness facilities?

7) Is there a relationship between registration to Fitness Australia and the number of incidents or accidents/injuries that occurred in health/fitness facilities in the last twelve months?

8) What are the sources of risks in health/fitness facilities?

Analysis

9) What is the possibility of injuries occurring according to the type of health/fitness facilities?

10) What is the possibility of injuries occurring according to the size of health/fitness facilities?

11) What is the possibility of injuries occurring according to the membership and daily membership number of the health/fitness facilities?

Risk Evaluation

12) Is there a relationship between the number of injuries and adherence to risk management practices?

13) Does allocation of resources for a risk management plan affect adherence to risk management practices in health/fitness facilities?

14) Does allocation of the amount of resources (% budget) for a risk management plan affect adherence to risk management practices in health/fitness facilities?

15) Is there a significant difference in risk management practices of health/fitness facilities that have\ don`t have a risk management plan?

16) What are the most important risk management practices for the health/fitness facility managers?

Treatment of Risks

17) Do health/fitness facilities regularly revise and rehearse their emergency action plans?

18) Do health/fitness facilities provide regular in-service training and require current certification of their health/fitness professionals?

19) Are legal waivers used and if so how are they used in risk management of health/fitness facilities?

4. Hypotheses

Drawn from the research questions listed in the previous subsection, the hypotheses of this study were as follows:

H1: Registered health/fitness facilities adhere to risk management practices more than unregistered health/fitness facilities.

$H_0$1: There is no difference between registered and non-registered health/fitness facilities in adherence to risk management practices.

H2: Health/fitness facilities with more injuries have more legal claims.

$H_0$2: The number of injuries sustained in health/fitness facilities has no effect on the number of legal liability cases.

H3: Larger (m^2) health/fitness facilities have more accidents/ injuries.

$H_0$3: The size (m^2) of health/fitness facilities does not affect the number of accidents/ injuries sustained in health/fitness facilities.

H4: Health/fitness facilities with more members have more accidents/ injuries in their facilities.

$H_0$4: The number of members of health/fitness facilities does not affect the number of accidents/ injuries sustained in the health/fitness facilities.

H5: Health/fitness facilities with more daily members have more accidents/ injuries in their facilities.

$H_0$5: The number of daily members of health/fitness facilities does not affect the number of accidents/ injuries sustained in health/fitness facilities.

H6: Allocation of financial resources increases risk management practices.

$H_0$6: Allocation of financial resources does not affect adherence to risk management practices.

H7: Having a risk management plan increases adherence to risk management practices.

$H_0$7: Having a risk management plan does not affect adherence to risk management practices.

H8: Health/fitness facilities that do not have legal liability claims have higher adherence to risk management practices than the health/fitness facilities that have legal liability claims.

$H_0$8: There is no difference in adherence to risk management practices between health/fitness facilities that have legal liability claims and do not have legal liability claims.

5. Operational Definitions

Health/Fitness Industry: The health/fitness industry consists of service providers primarily engaged in operating fitness and recreational sports facilities featuring exercise and other active physical fitness conditioning or recreational sports activities (US Census Bureau, 2010).

Risk: Risk is the possibility of something happening that can have an impact on the objectives of an organization or business (Standards Australia, 2004a).

Risk Management: Risk management is the culture, processes and structures that are directed towards the effective management of potential opportunities and adverse effects (Standards Australia, 2004a).

Risk Management Practices: Risk management practices are the preventative measures that health/fitness facilities take to avoid dangers to safety and health of their members as well as to avoid and minimise legal liability of their business entity**.**

CHAPTER II

REVIEW OF LITERATURE

The focus of this study was on two major types of risks that health/fitness facilities can face. The first is programmatic risks. This relates to the failure of health/fitness facilities to provide reasonably safe services that do not entail physical harm and injury to their patrons. The latter includes financial risks such as high cost liability claims or out of court settlements that may arise as a result of physical harm and injuries caused to patrons. As illustrated in Figure 1, both can have serious consequences on the economic health of health/fitness service providers resulting in damage to image and reputation, loss of existing and prospective members, and loss of revenue.

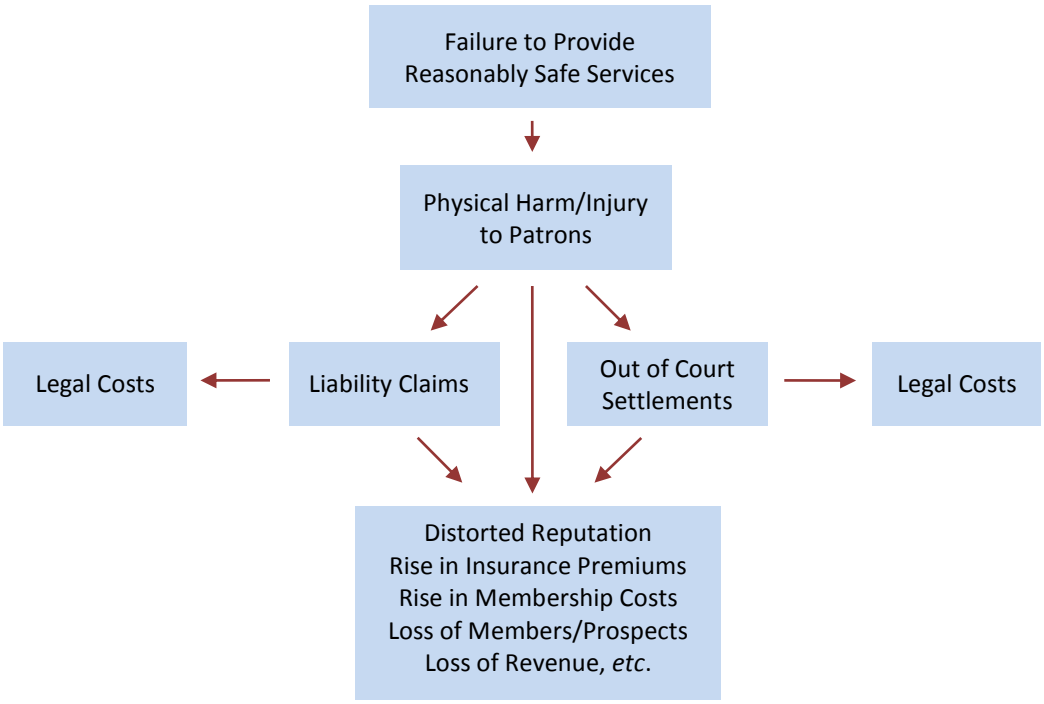

Figure 1. Risks in the health/fitness industry

Section 1 of this Chapter outlines the sources of legal liability to better understand how Australian law operates to protect individuals against injuries and damages that can arise from the services that health/fitness facilities provide. Section 2 describes what risk and risk management is. Section 3 explains the five step risk management process based on the Risk Management Standard AS/NZS 4360:2004. Section 4 highlights some of the benefits associated with implementing a comprehensive risk management program to organisations. Section 5 outlines the framework and standards in the health/fitness industry, and Section 6 demonstrates potential risk areas that health/fitness facilities have to be aware of while developing risk management strategies.

1. Sources of Legal Liability

> A person who is ignorant of legal matters is always liable to make mistakes when he tries to photograph a court scene with his pen. (Twain, 1986, p.53)

Health and fitness facilities are subject to potential liabilities as a result of an array of injury risks involved in various activities that they offer to their customers. In the light of Twain`s quotation cited above, having sound knowledge and understanding of the sources of legal liability can have a profound effect on the way health and fitness facility managers perceive risks of liability and the way they deal with those risks as they face them. This section outlines general information about the principles of common law and tort law, and describes legal terms that health and fitness facility operators in Australia need to be aware of in developing and implementing effective risk management programs.

1.1. Common Law

Common law is the legal tradition that has flourished in England since the 11th century AD. Common law is the foundation of private law, not only in England, Wales and Ireland, but also in Australia, New Zealand, forty-nine states in the United States, nine Canadian provinces and most countries which first received that law as colonies of the British Empire and which, in many case, have preserved it as independent States of the British Commonwealth (Tetley, 1999). Common law is technically based on English common law concepts and legal organizational methods, which gives priority to case-law based on the principles proclaimed in court decisions as rendered by judges. It may be defined as law that emerges from case decisions. This comes from the principle of *stare decisis*, the Latin for 'to stand by things which have been decided'. It is defined as the "doctrine under which a court is bound to follow previous decisions, unless they are inconsistent with a higher court's decision or wrong in law" (Nygh and Butt, 1997). In other terms, "stare decisis refers to the practices of lawyers and judges using, or avoiding, legal principles and earlier

judgments of courts when arguing, or deciding, cases before them" (Dent and Cook, 2007. para.16).

1.2. Tort Law

From a broad perspective, the word 'tort', French by origin, means 'wrong' or 'injury' (Trindade, Cane and Lunney, 2007, p.1). In contemporary Australian law, tort can simply be defined as a civil wrong committed against an individual. Generally, torts are not defined within specific statute or legislation and have evolved through judge-made (common) law. In the United Kingdom, most European countries, Australia, the United States and Canada torts most often fall within the domain of common law. In the United States, statutes sometimes override the common law, especially in the areas of negligence, personal injuries and defamation. Australian tort law is heavily influenced by the common law in other countries, principally the United Kingdom, by virtue of Australia's colonial heritage. There is also a strong and recent trend for the Australian High Court to cite with approval many principles from the United States.

In tort law, a wrong may be done or harm may be caused either intentionally or unintentionally by one person to another person's body, property or reputation. The former means that the individual intended to cause harm. This involves specific kinds of deliberate conduct which the courts have recognized to be wrongful (Kerr, Kurtz and Olivo, 2005). Examples of intentional torts are battery, assault, false imprisonment, trespass to land, intentional infliction of mental suffering, and abuse of process. Unintentional tort means that the individual did not plan or want to cause harm. The most common type of unintentional tort is called negligence.

For tort liability to occur a plaintiff bears the onus of proof of a chain of elements that includes: (1) an act (or omission to act); (2) causation; (3) fault; (4) protected interest; and (5) damage. Cooke (2007) illustrates tort liability using a scenario of an accident caused by a careless driver, who runs into a pedestrian walking on the pavement and causes personal injuries to the pedestrian. In this particular case, the act would be driving the car. Causation would be the fact that this act caused damage to the pedestrian. Fault would be the carelessness of the driver and

the protected interest would be the personal safety of the pedestrian. The personal damage that the victim suffered would be considered by law in regard to liability. As a result, the driver may be liable to the pedestrian in the tort of negligence and be required to compensate in monetary terms for the damages.

1.2.1. Negligence

Negligence can be defined as the omission to do something that a reasonable man would do, or doing something which a prudent and reasonable man would not do. This definition stemmed from the well-known case *Blyth v. Birmingham Water Works* (1856). In this particular case, the plaintiff sued the defendant waterworks company, when a water main, which was built by the company, burst during an extreme frost, flooding to the plaintiff`s house. The accident was due to the accumulation of ice around a fire plug connected to the water main. For some time before the accident, ice had been observed on the surface of the ground, and the company had removed the ice from the stopper, taken out the plug, and replaced it. The judge left it to the jury to consider whether the company had used proper care to prevent the accident. The verdict of the jury was that the defendants could not be held liable as the accident occurred under unexpected severe weather conditions, and as no other reasonable man would have been expected to behave differently. Therefore, the defendants were not negligent. However, the defendants might have been liable for negligence, if they had unintentionally omitted to do what a reasonable person would have done, or did not take reasonable precautions.

Even though, common law jurisdictions may differ slightly in the exact classification of the elements in negligence cases, in Australian tort law it is necessary to establish that (Trindade, Cane and Lunney, 2007):

1) a legal duty of care is owed to the plaintiff,
2) there has been a breach of that duty, and
3) the party seeking damages suffered harm that was caused by that breach.

There usually is a contractual and close relationship between health/fitness facility operators and their customers. This suggests that a duty of care is owed by health/fitness facility operators to protect their customers from exposure to unreasonable risks that may cause harm arising from the service/program provider and user/participant relationship. Therefore, if an exercise participant/member sustains injuries resulting from the services provided by a health/fitness facility because the facility did not adhere to certain standards of care, the exercise participant/member can claim damages for breach of a duty of care in tort. Furthermore, under the provisions of the *Competition and Consumer Act 2010* (s 60 of The Australian Consumer Law in Schedule 2) health/fitness facilities in Australia have an implied contractual duty to provide their services safely 'with due care and skill' (**note:** *'recreational services' can contract out of this implied duty of care by use of exclusion clauses incorporated into the contractual agreement, but not for 'reckless conduct',* s 139A *Competition and Consumer Act*). Therefore, health/fitness facility customers can also claim for damages for breach of this contractual duty of care.

Irrespective of whether the claim is in tort or for breach of contract, the question of legal liability will usually depend on whether the health/fitness facility operator failed to meet a reasonable standard of care that, objectively, can reasonably be expected of such operator. In determining this question, the law considers whether the risk of the particular injury was reasonably *foreseeable* and whether the defendant failed to take necessary precautions against that foreseeable risk of injury based on the facts of each case.

1.2.1.1. Foreseeability

Even though negligence can be considered to be based upon the foreseeability of an injury caused by the defendant (Mann and Considine, 1993), the fact that a risk of injury is foreseeable and that the defendant failed to take steps to avoid that foreseeable risk of injury may not suffice liability (Ipp et al., 2002). A two-staged test was set out by Judge Mason in *Wyong Shire Council v Shirt* (1980) that is used by the courts today in deciding whether a defendant has breached a duty to the plaintiff to

take reasonable care. This particular test seeks to answer (McDonald, 2005, pp.463-464):

> (1) Whether a reasonable person in the defendant`s position would have foreseen that the defendant`s conduct might pose a risk of injury to the plaintiff? and, if so,
> (2) What the reasonable person would have done by way of response to the reasonably foreseeable risk of injury? The perception of the reasonable man`s response is considered based upon factors that include:
> (a) magnitude of, and degree of the risk
> (b) the probability of its occurrence,
> (c) the expense, difficulty and inconvenience of taking alleviating action [precautions], and
> (d) any other conflicting responsibilities which the defendant may have.

In most jurisdictions (*Civil Law (Wrongs) Act* 2002 (ACT) s 43 (1); *Civil Liability Act* 2002(NSW) s 5B(1); *Civil Liability Act* 2003 (Qld) s 9(1); *Civil Liability Act* 1936 (SA) s 32(1); *Civil Liability Act* 2002 (Tas) s 11 (1); *Civil Liability Act* 2002 (WA) s 5B(1); Wrongs Act 1958 (Vic) s 48(1)), legislation now governs the meaning of foreseeability in relation to breach of duty, and articulates the relevant factors pertaining to 2(a) and 2(d) above. In general, a person is not negligent for not taking precautions against a risk of harm unless:

> (1) the risk was foreseeable (it is a risk of which that person knew or ought to have known);
> (2) the risk was not insignificant; and
> (3) a reasonable person, in that person`s position, would have taken those precautions in the circumstances.

According to Rochford (2007, p.183) the common law test in determining whether a risk of injury is reasonably foreseeable is based on open-ended "commonsense calculations of risk" and is contrary to the more objective calculative processes of risk management. Therefore, over the years, courts have had varying understanding and decisions in trying to deal with the meaning of 'reasonable risk' based on the circumstances of each individual case. In *Wyong Shire Council v Shirt*

(1980) the High Court of Australia contended that "…a risk of injury which is remote in the sense that it is extremely unlikely to occur may nevertheless constitute a foreseeable risk" (p. 48). In cases involving special skill, such as medical negligence cases, the courts have demonstrated a limited tolerance to risk with respect to the impact and magnitude of the consequences of risks (Kemsall, 2000, p. 143). For example, according to the High Court of Australia in *Rogers v Whitaker* (1992) a one in 14,000 risk, and in *Chappel v Hart* (1998) a risk that did not even appear in medical text books were considered as foreseeable.

Often, a reasonably foreseeable risk of injury is weighed against the cost or inconvenience of taking the precautions that are necessary to avoid it. However, a defendant must usually take precautions that involve little difficulty or expense, even if the risk of injury is small (*Romeo v Conservation Commission (NT),* 1998). As Judge Mason pointed out in *Wyong Shire Council v Shirt* (1980), ultimately the question of fact is what a reasonable person, in the position of the defendant, would do by way of response to the risk under question. In this light, critical in the assessment whether the defendant failed to take necessary precautions against that foreseeable risk of injury is a determination of the objective and reasonable 'standard of care' that can be expected in the particular industry or profession. The obviousness of a risk is also a factor in determining the standard of care but is not in itself conclusive (*Woods v Multi-Sport Holdings Pty Ltd,* 2002).

The standard of care determines the way in which a person should act with watchfulness, attention, caution and prudence to make sure that they do not breach their duty of care (Campbell, 2004). "The standard of care can be determined in various ways, but one way is from standards of practice developed and published by professional organizations" (Eickhoff-Shemek, 2003, p.301) that can be introduced into a court of law via expert witness testimony. As illustrated in Figure 2, if the defendants` practices fall below the standard of care, then they may be liable for harm or injuries resulting from such conduct. For example, in support of standard developments in the health/fitness industry, the courts in Australia have held that fitness facilities owe a duty of care to their clients to conduct pre-exercise evaluations

and assessments (as supported by some State and Territory Fitness Industry Codes of Practice) that minimise the risk of injuries and adverse health outcomes that may be caused by the provision of exercise programs (*Belna Pty Ltdv Irwin*, 2009).

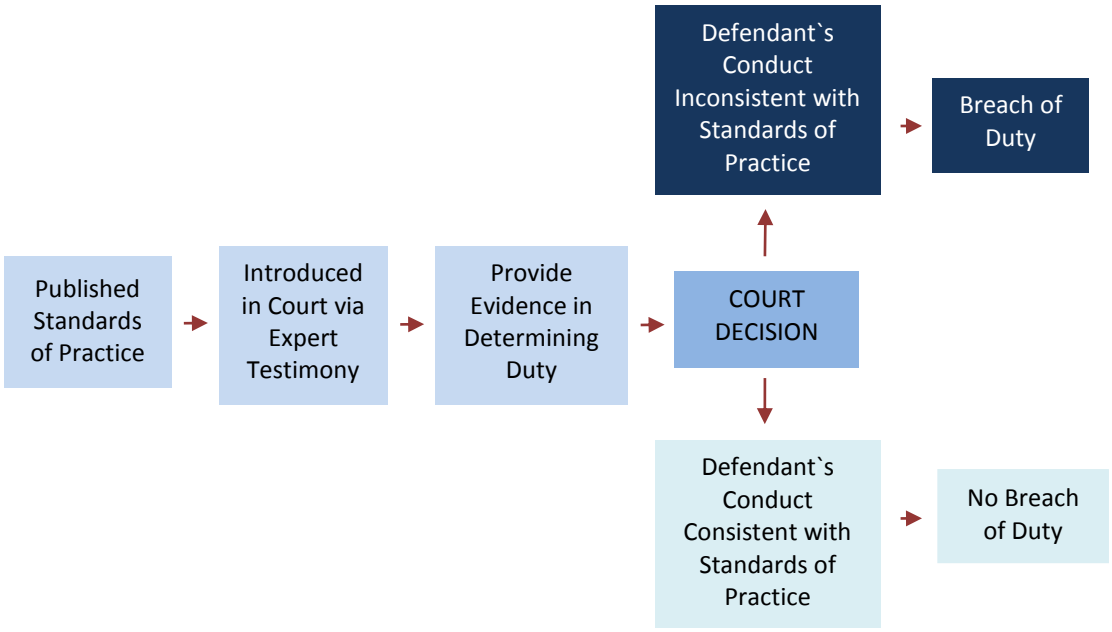

Figure 2. Standards of practice in a negligence lawsuit (Adapted from Eickhoff-Shemek, 2003, p. 301)

1.2.1.2.Causation

For a negligence action to succeed, a plaintiff not only has to prove that there was a duty of care owed by the defendant and that there was a breach of that duty of care but the particular harm was caused by that breach (McGlone and Stickley, 2005). The two elements that need to be addressed to determine if a breach of duty caused particular harm comprises "factual causation" and "scope of liability" (Ipp et al., 2002, p.117). In order to establish factual causation, the court needs to be satisfied that the negligence was a necessary condition of the occurrence of the harm. However, "[a]nswering this question positively is not enough to justify the imposition of liability for negligence because every event has an infinite number of necessary conditions...of equal salience in explaining how the harm came about" (Ipp et al.,

2002, p.114). Therefore, once factual causation has been established, the second stage -scope of liability- is necessary to consider whether or not and if so, why responsibility of the harm should be imposed on the negligent party (Ipp et al., 2002).

In Queensland, for example, the relevant provisions in s 11 of the *Civil Liability Act 2003* state that:

> (1) A decision that a breach of duty caused particular harm comprises the following elements–
> (a) the breach of duty was a necessary condition of the occurrence of the harm (factual causation);
> (b) it is appropriate for the scope of the liability of the person in breach to the extend to the harm so caused (scope of liability).
> (2) In deciding in an exceptional case, in accordance with established principles, whether a breach of duty—being a breach of duty that is established but which cannot be established as satisfying subsection (1) (a)—should be accepted as satisfying subsection (1)(a), the court is to consider (among other relevant things) whether or not and why responsibility for the harm should be imposed on the party in breach.

Other relevant provisions are found in *Civil Law (Wrongs) Act 2002* (ACT) s 45, *Civil Liability Act 2002* (NSW) s 5D; *Wrongs Act 1936* (SA) s 34(2); *Civil Liability Act 2002* (Tas) s13; *Wrongs Act 1958* (Vic) s 51; and *Civil Liability Act 2002* (WA) s 5C.

The case of *Favlo v Australian Oztag Sport Association* (2006) in the New South Wales Court of Appeal provides a good example for how failure to establish a causal link between the injury suffered by the plaintiff and the alleged breach of duty of care can determine a verdict for the defendant. Favlo had seriously injured his right knee while playing a game of Oztag on a multi-use city Council grade field in January 2000. The sport field had an uneven surface and worn out areas that were filled with sand. Favlo first brought an action in negligence against the city Council and the *Australian Oztag Sport Association* in the District Court of New South Wales. One of the matters in contention was that the condition of the field was unsuitable for playing Oztag. The trial judge was not convinced by this assertion but went on to consider causation even if there had been a breach. When it came to the question of whether there was a causal link between the state of the field and the injury sustained by Favlo, the examining doctors testified that Favlo had sustained his knee injury by stepping

into the sand area on the playing field with a side step while trying to change direction running at speed. Therefore, the trial judge rebutted Favlo`s causation argument.

These matters were reconsidered in the New South Wales Court of Appeal. The appellate judges agreed with the trial judge`s opinion that it was Favlo`s own fault that caused him to sustain the injury in his right knee rather than the condition of the field. The appellate court considered that it was unrealistic to expect community sporting facilities to reflect first class standards. In this regard, in the opinion of the appellate judges, the sandy patches and surface unevenness complained of did not constitute negligence on the part of the Oztag Association or the Council. Therefore, Favlo`s argument that the defendants were negligent in not maintaining an even playing field and that the uneven field caused his injury failed.

Sometimes courts may make an exception to the need for a plaintiff to establish the causal link between the negligent conduct and the harm that has occurred. In particular, these exceptional cases can occur where there are limitations in medical knowledge that makes it impossible for the plaintiff to prove, on the balance of probabilities, that the defendant`s negligence was a necessary cause of the plaintiff`s damage (McGlone and Stickley, 2005, pp.225-226).

In this respect, McGlone and Stickley (2005, p. 226) use the case of *McGhee v National Coal Board* (1973) as an example. This particular case illustrates the problem of establishing causation in fact where the defendant's negligence is, on a common sense basis, one of the causal factors but it is impossible, on the balance of probabilities, to identify that cause from others. In this particular case, McGhee, a workman employed to empty pipe and brick kilns at a brickworks, contracted dermatitis due to the alleged negligence of the employer to provide adequate washing and shower facilities. The employers admitted breach but argued that the plaintiff had failed to prove that the breach caused contraction of the disease. The House of Lords agreed that there was evidential gap in regard to the fact it was not known whether McGhee would have contracted the disease or not, if he had been able to wash immediately in showers provided by his employers. However, the court held that there was no actual difference between materially increasing the risk of injury and making a

material contribution to the injury, in the absence of complete knowledge of all the material factors relating to the disease. Therefore, the plaintiff was entitled to recover for an injury within the risk which the employer had created.

1.2.2. Vicarious Liability

At common law, where a contract of employment exists, under the '*respondeat superior*' (the Latin for 'let the master answer') doctrine, employers are held vicariously liable for the negligent acts or omissions by their employees in the course of their employment (Turner, 2006). Therefore, it is not uncommon practice for health/fitness facilities to make contractual agreements with, for example, group exercise trainers, personal trainers, or fitness instructors as 'independent contractors' to shift the possible liability to that contractor (Sharp, Moorman and Claussen, 2010). However, in some cases, a party may also be liable for acts of independent contractor.

The rationale for vicarious liability rests on various policies such as (McGlone and Stickley, 2005, p.348):

- it allows a plaintiff to be compensated by a defendant who is financially viable;
- a defendant who employs others in order to advance its own enterprise should be under a corresponding liability for the losses occurring in the pursuit of that enterprise;
- it promotes loss distribution; and
- it is an incentive for defendants to exercise control over how their enterprises are carried out to minimise future loss or injury to third parties.

In general, an employer is not vicariously liable for the tortious conduct of an independent contractor, even though that person was carrying out the work for that party (McGlone and Stickley, 2005; Trindade, Cane and Lunney, 2007). However, the legal nature of that relationship is subject to a court`s decision, irrespective of how the

parties may describe their relationship (McGlone and Stickley, 2005). In this respect, courts have developed various tests over the years.

The current approach of the courts is to employ a 'multi-facet test' that considers a range of factors relevant to each individual case in determining the relationship (McGlone and Stickley, 2005). The 'multi facet' test includes, but not limited to, factors such as: (1) degree of control an employer can exercise over a worke; (2) mode of remuneration; (3) provision and maintenance of equipment; (4) obligation to work; (5) hours of work and provision for holidays; (6) deduction of income tax; and (7) delegation of work by a worker (*Stevens v Brodribb Sawmilling Co Pty Ltd*, 1986, at CLR 24; ALR 517).

In *Holis v Vabu Pty Ltd* (2001) in the New South Wales Court of Appeal, the plaintiff was injured when knocked down by a courier on a bicycle wearing a jacket that identified the respondent`s business. In line with the decision of the trial court, the appellate court held that the couriers employed by the respondents were independent contractors and therefore the respondent was not vicariously liable for their negligence. The plaintiff appealed to the High Court of Appeal. The High Court of Appeal stated that in classifying the bicycle couriers as independent contractors, the Court of Appeal fell into error in making too much of the circumstances that the bicycle couriers owned their own bicycles, bore the expenses of running them and supplied many of their own accessories. Viewed as a practical matter, the High Court drew attention to the fact that the bicycle couriers were not running their own business or enterprise, nor did they have independence in the conduct of their operations. Secondly, the evidence showed that the couriers had little control over the manner of performing their work. They had highly restricted working hours and apart from providing their own bicycles and being responsible for the cost of repairs, couriers were required to bear the cost of replacing or repairing any equipment of Vabu that was lost or damaged, including radios and uniforms. Couriers were required to wear Vabu uniform partly to advertise its business. However, the uniform also encouraged pedestrians to identify the bicycle couriers as a part of Vabu's own working staff. Last but not least, the High Court noted that the couriers did not supplement or perform

part of the work undertaken by Vabu or aided from time to time but they rather performed all of Vabu's operations in the outside world. Based on these grounds and a myriad of other factors the High Court of Appeal reversed the New South Wales Court of Appeal's decision, and concluded that the relationship between Vabu and its bicycle couriers was that of an employer and an employee.

In this light, it can be suggested that today the courts would look at the totality of the relationship and consider a wide range of factors when determining whether a worker is correctly an employee, or an independent contractor in determining vicarious liability. Therefore, some of the most important risk management strategies for health/fitness facilities that employ independent contractors would be to: (1) set up the relationship properly from the beginning of the employment, (2) treat that person consistent with the independent contractor agreement, and (3) develop a list of necessary credentials for the independent contractor and hire only contractors that meet those criteria (Sharp, Moorman and Claussen, 2010, p. 91).

2. What is Risk and Risk Management?

The notion of 'risk' is central to the definition of 'risk management'. The Risk Management Standard AS/NZS 4360:2004 describes 'risk' as the possibility of something occurring that can have a detrimental impact on objectives of an organization (Standards Australia, 2004a, p. 4). Risks may also occur as the consequences of a negligent act or non-compliance of an organization with laws, regulations and standards in the industry, such as injuries to exercise participants, legal liability claims and distorted reputation of an organization. Even though all human actions involve a certain amount and degree of risk and it would almost be impossible to eliminate all risks, they can be minimised by the way people perceive and handle those risks.

The perception of risk is subjective and can depend on various factors such as experience, cultural perspective, knowledge and skills. For example, a person may accept the risk of driving a car but may choose not to fly in aircraft because of the perceived risk, when fatality statistics indicate the risk associated with air travel is

much lower than that for driving a car (Standards Australia, 2004c, p.3). Therefore, those with best possible information, knowledge and experience of past events will usually be better prepared to manage risks.

In the past, managers used to deal with risks as they faced them, or solely relied on intuition and common sense to either prevent problems resulting from risks or reacting in an attempt to recover. Today, no longer is risk management a safety procedure conducted by common sense, experience and intuition, but an organized plan based on fundamental legal concepts, through which a business attempts to control and encounter the risks it faces (Williams et al., 2006).

It is possible to find a variety of definitions for risk management in the literature. The Risk Management Standard AS/NZS 4360:2004 defines risk management as the culture, processes and structures that are directed towards the effective management of potential opportunities to improve performance and taking action to avoid or reduce the chances of something going wrong and its adverse effects (Standards Australia, 2004a, p.4). Even though this approach to managing risks may relate to every aspect of an organization, personal injury and prospective liabilities are considered to be primary issues in risk management of sport and recreation organizations due to the risky nature of sport and physical activity (Sharp, Moorman and Claussen, 2010). Correspondingly, Spengler, Connaughton and Pittman (2006, p. 2) describe risk management as "reducing or eliminating the risk of injury and death and potential subsequent liability that comes about through involvement with sport and recreation programs and services".

As Sharp, Moorman and Claussen (2010, p.14) denote the safety and well-being of all customers should be one of the core values of an organisation and risk management is a crucial asset for an organisation in carrying out that objective. In support of this assertion, the American College of Sports Medicine (ACSM) defines risk management in a health/fitness facility as "the practices, procedures and systems by which the club reduces its risk of having an employee, member, or user experience an event that could result in harm (injury or death) to the individual (employee, member, or user) and perhaps later to the business entity itself" (Tharrett, McInnis and

Peterson, 2007, p.17). In this regard, a good risk management plan of a health/fitness facility would cover practices that range from those that are preventive in nature (i.e. pre-activity screening, proper maintenance of fitness equipment, record keeping of facility inspections, and analysis of why accidents occur) to those practices that are considered a reaction or a recovery and response system to unexpected events (i.e. emergency response systems).

3. Risk Management Process

In order to ensure proper functioning of a risk management plan the Risk Management Standard AS/NZS 4360:2004 can be the skeleton of a health and fitness business. However, as Healey (2005, p.123) highlights, the Risk Management Standard '…is not intended to create uniform risk management systems – [rather] systems should be developed according to the needs, objectives and business of an organization'. In this light, the Risk Management Guidelines HB 436:2004 and Guidelines for Managing Risk in Sport and Recreation HB 246:2004 have been developed to help different sport and recreation organizations implement the risk management process outlined in the Risk Management Standard AS/NZS 4360:2004 within their own contexts.

As illustrated in Figure 3, risk management process is the "systematic application of management policies, procedures and practices to the tasks of communicating, establishing the context, identifying, analysing, evaluating, treating, monitoring and reviewing risk (Standards Australia, 2004a, p.5).

The essence of the five step risk management process is to identify emerging and unidentified risks. There are two overriding elements of the system. These are continuous communication/consulting, and monitoring/review. The former emphasizes that internal and external stakeholders are communicated with and consulted in each step of the risk-management process. The latter suggests that the risk management process must be monitored by the risk management team to provide feedback on the process as well as to determine if or when improvements must be made.

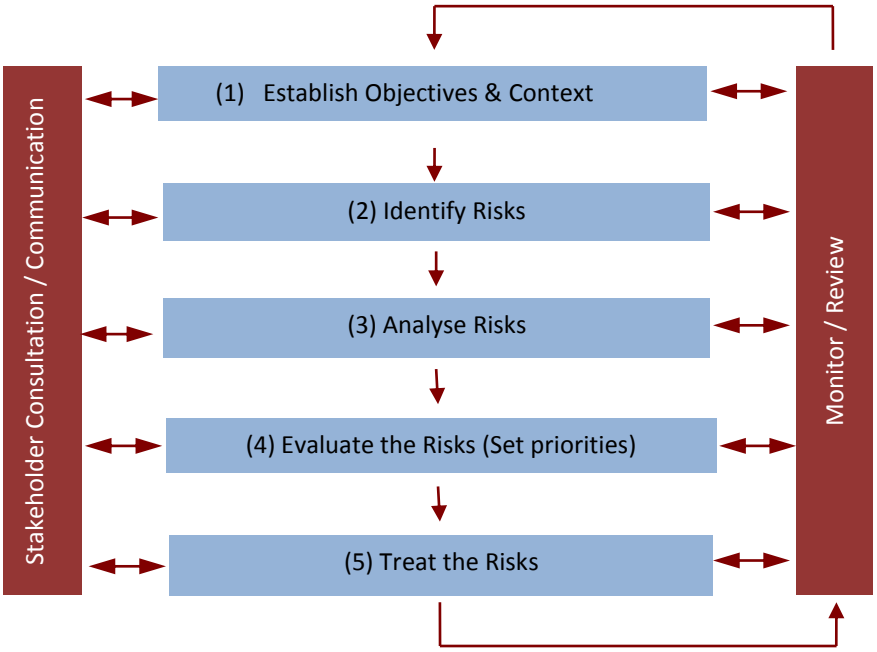

Figure 3. Risk management process (Adapted from Standards Australia, 2004a, p.13)

Risk communication and consultation can be defined as any two-way dialogue between stakeholders about the existence, nature, form, severity, or acceptability of risks. Knight (2006) contends that a risk management communication strategy must be mutual and focused on consultation rather than a one-way flow of information from decision-makers to stakeholders, especially those outside the organization. Therefore, it is crucial to analyse and identify stakeholders in the beginning of a risk management process. Although, the mix of stakeholders may change due to new issues, needs or concerns that may arise through the risk management process (Knight, 2006), the stakeholders would generally include:

- customers,
- individuals inside the organization, such as employees, management,
- individuals or groups who are interested in issues related to the proposal,
- individuals who are, or perceive themselves to be, directly affected by a decision or activity,

- non-government organizations (NGO) such as lobby or advocacy groups, whose aim is to influence government policy making and/or implementation,
- partners in the decision, such as financial institutions and insurance agencies,
- politicians at all levels of the government, who may have an electoral or portfolio interest,
- regulators and other government organizations that have authority over activities,
- senior management, contractors, and volunteers,
- suppliers and service providers, and
- the media.

The first step in the risk management process should be the appointment of a risk management co-ordinator and a risk management review committee (Archer, 2002). It is critical to recruit key people in each step of the risk management process in order to ensure that all risks across the organization are identified and assessed (Australian Sports Commission, 2002). According to the Risk Management Standard AS/NZS 4360:2004, the risk management review committee or a risk management team should have representatives from the finance, operations, engineering, business improvement and the internal audit functions of the organization, who meet on a monthly basis. The aim of the risk management co-ordinator is to report regularly to the risk management review committee, the senior executive team and the board of directors about the development of the risk management framework, as awareness, support and commitment of the senior managers is crucial for the execution of the risk management plan.

In businesses with smaller hierarchy such as health/fitness facilities, hiring a full-time professional risk management co-ordinator or recruiting a risk management team may often not be feasible. In this light, "the responsibility of risk management lies with the health/fitness manager or owner and the health/fitness professionals who

have oversight of the programs and services provided within the facility" (Eickhoff-Shemek, Herbert and Connaughton, 2009, p. 14). According to Brown (2003, p.312), no matter how well a risk management plan is written, it would be meaningless if an organization lacks qualified employees capable of implementing the plan. Therefore, health/fitness facility managers should provide regular in-service education programs as well as supporting written documentation to ascertain that their employees understand their roles in the risk management plan and the implementation process in their organization.

An in-service education program should provide the employees with the ability to identify various types of risks in their facilities. Providing oral education for a risk management plan not only improves interpersonal communication within an organization but ensures that the message is delivered to and received by all employees (Brown, 2003). Managers should also organize regular meetings with employees at all levels for continuous feedback and support throughout the risk management process. The *Risk Management Code of Practice 2007* (Qld), according to which health/fitness facility operators are required to perform under the *Workplace Health and Safety Act 1995* (Qld), clearly states that consultation between management and workers is beneficial throughout the risk management process because it:

- brings together different areas of expertise to identify and analyse risks and allows those with day to day experience of the hazards to provide valuable input,
- allows workers to have ownership of the risks and the solutions,
- increases the likelihood that workers will be committed to implementing the control measures because they understand why they are being imposed,
- increases workers' morale, satisfaction and retention rates, as staff feel they are being listened to and involved,
- improves trust, communication and teamwork,

- improves productivity as a result of better decision-making processes, and
- contributes to developing a positive safety culture in the workplace, by increasing team commitment to workplace health and safety.

Above all, establishing adequate resources is one of the most crucial aspects to consider before starting a risk management process (Standards Australia, 2004a). An organization should identify resource requirements for risk management through consideration of: (1) level, development and maintenance of risk management skills of managers and staff; (2) documented processes and procedures, information systems and databases; and (3) money and other resources for specific risk treatment activities.

3.1. Establishing Organizational Objectives and Context

‘Risk’ is the chance of something happening that will have an impact on the objectives of an organization (Standards Australia, 2004b). From this perspective, it is crucial to know the objectives of the organization function or activity that are being examined in order to capture all significant risks. In today`s ever-changing global competitive environment, organizations have a need to better understand and make sense of the context of their environments and of their own evolving and dynamic position within them (Bensoussan and Fleisher, 2008). Therefore, in the first stage of the risk management process organizational objectives should be established in regard to the environmental context of an organization in which the objectives are pursued (Standards Australia, 2004b, p.30).

The environment includes both the external and the internal context of an organization. One of the most commonly used, easy and practical methods used by managers to analyse the external and the internal context of their organization is the SWOT (an acronym for strengths, weaknesses, opportunities and weaknesses) analysis (Bensoussan and Fleisher, 2008). Additionally, PEST/PESTLE analysis is often used to analyse the external context of an organisation (Chapman, 2006). The following subsections 3.1.1 and 3.1.2 elaborate on these two management methods to

illustrate how they can be used to make a fit between the objectives and the context of an organisation in managing risks.

3.1.1. SWOT Analysis

SWOT analysis is a strategic planning method that is used to establish strategic goals and objectives by a thorough evaluation of the fit between the internal capabilities (strengths and weaknesses) and external possibilities (opportunities and threats) of an organization (Chapman, 2006). The internal context of an organization involves the core activities, resources, culture, operating systems, staffing practices, and the personal values over which a company has a greater degree of control. On the other hand the external context includes market demands, government policies, economic conditions, social, cultural and ethical developments,and technological developments that are constantly shifting.

A well conducted SWOT analysis would identify the key internal and external factors that can provide management with an understanding and overview of the forces, trends, and characteristics of a particular market in achieving the objectives of an organization. According to Chapman (2006, pp.423-425) the first step to be taken in a SWOT analysis is establishing the individuals that should be involved in the brainstorming process. Individuals should come from all key areas of the business and if appropriate key customers or suppliers should be involved to provide an objective view. The brainstorming is held in a workshop where the factors relating to the strengths, weaknesses, opportunities and threats are listed and scored in order of importance. “This may require further work to identify clearly the causal factors leading to particular strengths or weaknesses of the organization.” (Bensoussan and Fleisher, 2008, p. 192)

According to Chapman (2006, p.424), “[s]trengths matter only if a business can use them to exploit an opportunity or counter a threat. Similarly, a weakness is problematic if it relates to a threat”. In this light, making a match between the internal (strengths and weaknesses) and the external (threats and opportunities) factors is the most important part in a SWOT analysis that should not be ignored. As illustrated in

Figure 4, the matching factors in a SWOT analysis should be used to develop strategies to improve those matches for the competitive advantage of the company (Bensoussan and Fleisher, 2008, p. 186).

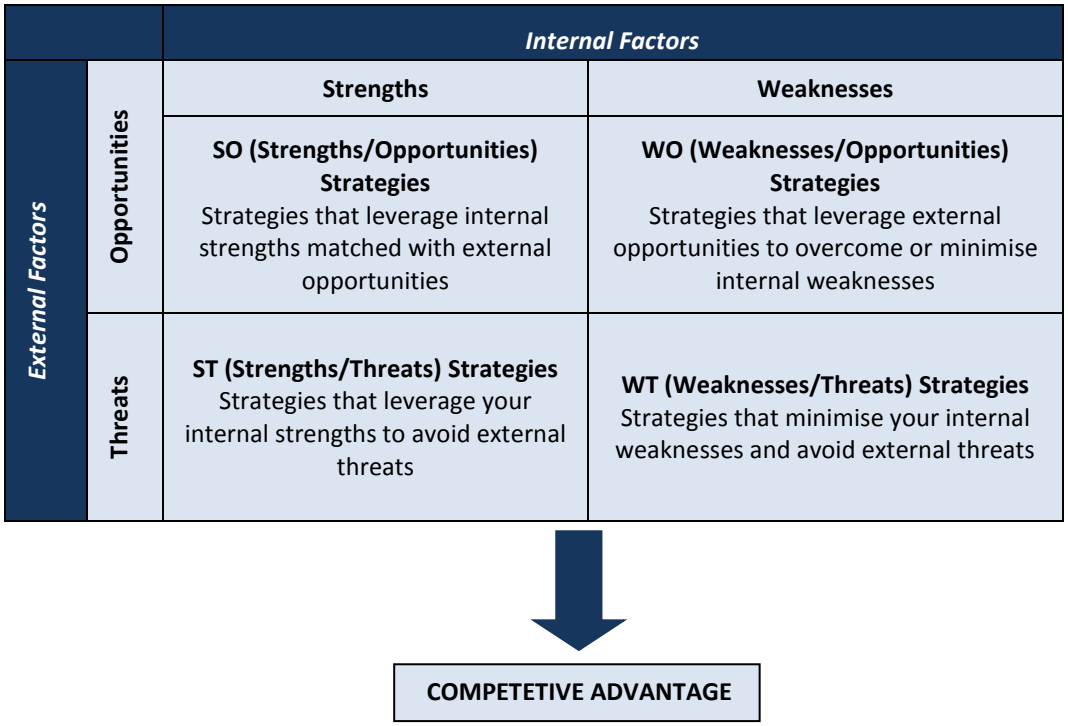

Figure 4. The SWOT Matrix (Adapted from Bensoussan and Fleisher, 2008, p. 195)

In general, an organisation should attempt to develop and recommend strategies that convert important weakness into strengths and important threats into opportunities. Each strategy should be elaborated by objectives that outline how the strategic goals will be achieved. The strategies should also be constantly monitored and analysed in order to devise new ones that can address developing issues. For example, a health/fitness facility whose main objective is to protect the safety and well-being of their patrons, improper implementation of pre-activity screening procedures can be a major 'weakness' associated with increased risk of injuries and even death of the existing and prospective clients. An associated 'threat' to this weakness can be an increasing demand for the services offered by health/fitness

facilities by high risk populations such as people over the age of 50 and obese or overweight individuals. As a strategy to turn this weakness/threat (WT) into strength/opportunity (SO) the health/fitness facility can adopt the best practices in pre-activity screening procedures published by the responsible national industry body. Further, in order to ensure proper implementation of the pre-activity screening procedures, fitness coordinator/s can be recruited to provide in-service training and regular meetings with fitness instructors and personal trainers of the health/fitness facility. This way the implementation of pre-activity screening procedures would be constantly monitored and analysed by the facility manager/s in order to cope with any difficulties that the staff may encounter throughout the process.

3.1.2. PEST/PESTLE Analysis

A PEST (an acronym for Political, Economic, Social and Technological factors) analysis is a useful tool to reveal many of the factors in the external environment that influence a business (Chapman, 2006). The first factor of a PEST analysis includes local, national and international political changes that can affect both costs and demand for a product or service. Legislation governing the minimum wage, anti-discrimination laws, taxation system, industry voluntary codes, and industry regulations are some the political factors that needs to be considered. The second element of a PEST analysis includes local, national and international economic factors. For instance, an economic downturn can reduce the available spending of stakeholders and that can force a business to lower the prices of their services or products to meet this change in the economic climate. In this regard, a business may have to consider lowering their costs by reducing the number of their employees or the products / services offered. The third aspect of PEST analysis considers societal issues such as the media that shape the attitudes, opinions and behaviours of the community. Changing characteristics of a population would also directly impact an organization`s survival. For example, in countries where obesity is considered as an epidemic, national health policies that support active living and greater levels of physical activity can increase the demand for health/fitness facilities. If organizations

do not offer products or services that can effectively and safely respond to such emerging needs of the society they can lose their market share. The fourth aspect of the PEST analysis considers technological advancements that can have a rapid and dramatic impact on the competitive advantage of a business in the market. For example, the internet and social networks can have a profound effect on the marketing strategy of a health/fitness business.

The recent 'Australian Internet and Technology' report indicated that internet participation amongst the Australian population has been steadily increasing and may have reached saturation over the last decade (Nielsen, 2010). Based on 2009 findings, internet users are spending more time online than ever before with an average of 17.6 hours a week. This is an increase of 3.9 hours since 2007. Internet use is most popular among the under 30s and those aged between 30-49 years while older segments of the population (>50 years) was the most growth in 2009. The same report suggests that females spend more time than males with Facebook on the internet for social networking. Taking into consideration the fact that customers of the Australian health/fitness industry are skewed towards females and those aged 25-44 years old, setting up a Facebook page, therefore may help health/fitness service providers engage with their customers or prospects within social media outside of the gym to provide ongoing support and advice about exercise (Sood, 2010). In addition, a well designed and regularly updated web page may allow a health/fitness facility to differentiate from its competitors by meeting the evolving technological demands of the consumers via on-line personal training programs, virtual tour of the facility and orientation programs. Thereby health/fitness service providers can not only increase customer loyalty, but improve revenue generation by providing motivational support both in and outside the gyms.

Later versions of PEST include both legal issues and environmental issues making it PESTLE (Chapman, 2006). Legal issues include changes in law that might directly affect a business. The environmental aspect considers issues such as natural and/or man-made events and disasters, or climate that can have a direct impact on the resources, demands or costs of a business.

3.2. Risk Identification

Risk identification can be described as the process that defines events or outcomes that may have a measurable impact on the success of an organization (Australian Sport Commission, 2002). In other words, risk identification helps determine what could have an impact on the strategies and objectives of an organization or a company. Poor risk identification can defeat the whole purpose of a risk management plan. Any risk that is left unidentified at this stage would not be included in the risk analysis stage and therefore would be excluded from the whole risk management process. Therefore, a comprehensive risk identification using a well-structured systematic process is critical at this stage of the risk management process (Standards Australia, 2004).

The resource of information used in the risk identification process includes historical data, theoretical analysis, empirical data and analysis, informed opinions of experts and the concerns of the stakeholders. Tools and techniques for identifying risks may be brainstorming, examination of local and overseas experience with similar activities, checklists, interview and focus group discussions, scenario analyses, surveys and questionnaires. Brainstorming was first developed by Osborn (1963) as a collective problem solving method aimed at reducing the inhibitions that deterred the generation of creative new ideas in organizational meetings. Following ongoing research in the area Rossiter and Lillien (1994) identified six principles that underlie the generation of high-quality creative ideas by 'brainstorming'. These principles are: (a) brainstorming instructions are essential and should emphasize, paradoxically, quantity and not quality of ideas; (b) a specific, difficult target should be set for the number of ideas; (c) individuals, not groups, should generate the initial ideas; (d) groups should then be used to amalgamate and refine the ideas; (e) individuals should provide the final ratings to select the best ideas, which will increase commitment to the ideas selected; and, (f) the time required for successful brainstorming should be kept remarkably short.

The Australian Sports Commission (ASC) (Australian Sports Commission, 2002, p. 36) highlights brainstorming as the preferred method in identifying risks in sport organizations where individual ideas are nurtured and welcomed in a non-intimidating atmosphere. Another advantage of brainstorming can be related to the facilitation of social interaction among the risk management team members who may provide non-biased input into identifying new and emerging risks. Furthermore, brainstorming can enable people participating in the workshop to contribute more as ideas are not criticised until later with suggestions regarded as building blocks to correct answers. The participants of the brainstorming workshop should consist of the members of the risk management team and the key representatives of the stakeholders.

Several key questions that can be asked during this process are (Standards Australia, 2004a):

- What are the sources of each risk?
- What events could have a positive or a negative impact on the objectives of the organization?
- What are the expectations of the stakeholders` for the organization`s performance?
- What might happen that may cause stakeholders to take action that can affect the objectives of the organization?
- What is the scope of this research?
- What resources are needed to carry out the research?
- What is the need for research into specific risks?
- When, where, why, how are the risks likely to occur, and whom might be involved?
- What are the consequences of each risk?
- What is the potential cost of each risk?
- What is the reliability of the information?

Before the risk identification process, risks that are most likely to occur have to be categorised. In this regard, identification of the key elements of risks through categorization provides a structure in the risk identification step by minimising the risk of missing important issues and fostering creativity in the risk management team (ASC, 2002). Organizations should identify key risk elements according to their own primary and secondary risk factors. Primary risk factors would include standard operating procedures (SOPs), while secondary risk factors would include factors such as weather, the type of activity, participant demographics and location of an event or facility (Ammon, Southall and Blair, 2003).

3.3. Risk Analysis

Risk analysis provides an understanding of risks by taking into consideration their sources, consequences and the possibility of the consequences occurring (Standards Australia, 2004b). Risk analysis can be conducted using quantitative and/or qualitative approaches. Quantitative analysis may determine a level of risk by means of a value that measures the risk in numerical terms. However, there are several disadvantages in trying to determine the level of risks in quantitative terms only. First, it would require great attention to the accuracy of data that measure the risk. Second, the risks that are measured would be limited to the availability of the quantitative data in hand. Third, intangible consequences of risks such as bad reputation or negative media coverage can be problematic. In this sense, it can be more practical to use a qualitative approach that uses description rather than numerical means to define a level of risk. Sources of information that can be used in a qualitative risk analysis are past history, knowledge, relevant publications, reasoning and current circumstances of the business and the environment (Knight, 2006).While neither approach is superior to the other, the best approach is to use a combination of quantitative and qualitative risk analyses to best fit the type of detail and information required about different types of risk.

Irrespective of the variability of the available data and the methodologies that can be used to analyse a risk, conducting qualitative analysis first would often be

more practical in providing a general idea of the magnitude of the consequences of the risk and the possibility that those consequences will occur. Examples of qualitative risk analysis are the 'consequence' and 'likelihood' scales. Table 1 demonstrates a simple descriptive 'consequence' table that can be used by organisations to consider risk factors related to health and safety, natural environment, reputation and legal issues (Standards Australia, 2004b, p. 52). For example, death or multiple life threatening injuries may be considered as 'catastrophic' consequences that would threaten the survival or continued effective function of the program or activity of an organisation. Whereas, injuries that require no medical treatment may be considered as 'insignificant' consequences that can be dealt with routine operations of an organisation.

Table 1. Consequences (Adapted from Standards Australia, 2004c, p.38)

Rating	Description
Catastrophic	The consequences would threaten the survival of not only the program or activity, but also the organisation, causing major problems for participants.
Major	The consequences would threaten the survival or continued effective function of the program or activity, or require the intervention of top-level management.
Moderate	The consequences would not threaten the program, but would mean that the administration of the program or activity could be subject to significant review or changed by ways of operating.
Minor	The consequences would threaten the efficiency of effectiveness of some aspects of the program, but would be dealt with internally.
Insignificant	The consequences are dealt with routine operators.

Table 2 illustrates a sample rating of 'likelihood' scale. Accordingly, risks that are 'almost certain' would have a significant past history and considered most likely to occur at least once a year or even more frequently in the current circumstances. Risks that are 'likely' to occur would have some past history and considered quite likely to occur once every 3 years in the current circumstances. Risks that are 'unlikely' would have no past history but possibly or occasionally occur in some

circumstances once every 30 years. Risks that are ‘rare’ would usually have no past history and considered unlikely to occur with an expectancy of once every 100 years.

Table 2. Rating of Likelihood Scale (Adapted from Standards Australia, 2004c, p.37)

Rating	Description	Frequency
Almost Certain	Significant past history, and considered most likely in these circumstances.	Once a year or more frequently
Likely	Some past history, and considered quite likely in these circumstances.	Once every 3 years
Possible	Some past history, and considered possible in these circumstances.	Once every 10 years
Unlikely	No past history, but possible in some circumstances or occasionally.	Once every 30 years
Rare	No past history, and considered unlikely to occur.	Once every 100 years

The needs of the study for each risk and the attention required by the management can be determined by using the ‘Risk Assessment Matrix’ that intersects the likelihood and consequences of each risk that may occur (Table 3). The purpose of determining the level of each risk on the matrix is to designate the level of management required and the response time required to deal with those risks. According to the ‘Risk Assessment Matrix’, risks that are ‘extreme’ must be brought to senior executive directors` attention for research and action management planning in detail immediately. Risks that are ‘high’ should be brought to the attention of senior management with heightened need for action management planning. Risks that are ‘moderate’ should be managed by specific monitoring or response procedures of the business. Risks that are ‘low’ should be managed through routine procedures in an organization as such risks would be unlikely to need specific allocation of resources.

Table 3. Risk Assessment Matrix (Adapted from Standards Australia, 2004b, p. 55)

		Consequences				
		Insignificant	Minor	Moderate	Major	Catastrophic
Likelihood	Almost certain	High (H)	High (H)	Extreme (E)	Extreme (E)	Extreme (E)
	Likely	Moderate (M)	High (H)	High (H)	Extreme (E)	Extreme (E)
	Possible	Low (L)	Moderate(M)	High (H)	Extreme (E)	Extreme (E)
	Unlikely	Low (L)	Low (L)	Moderate(M)	High (H)	Extreme (E)
	Rare	Low (L)	Low (L)	Moderate(M)	High (H)	High (H)

Legend: E= (immediate action); **H=** (heightened action); **M=** (monitoring required); **L=Low** (routine procedures)

For example, treadmill injuries that occur at least 2 times a year in a health/fitness facility can be rated as 'almost certain' on a likelihood scale such as the one given in Table 1. Then the risk of 'treadmill injuries' can be assessed on a risk assessment matrix such as the one given in Table 2. In determining the level of the consequence of the 'treadmill injuries', the severity of the injuries and the liability that may arise as a result of those injuries should be considered. For example, if a member hit his/her head against the wall and died from brain haemorrhage after falling off a treadmill the consequence would be 'catastrophic'. In this case, the risk would be 'extreme' and would need immediate action by the facility manager for thorough investigation to understand the underlying reasons for falling off treadmills in order to avoid the subsequent injuries.

3.4. Risk Evaluation

Risk evaluation is making decisions about future actions for the level of risks found during the risk analysis process outlined in the previous Subsection of this Chapter (Standards Australia, 2004a). The nature of the decisions such as whether a risk is tolerable (do not need treatment) or not (needs treatment) would depend on the

predefined external and internal context, risk management context and the objectives of an organization. In this sense, degree of control over each risk, cost, benefits, opportunities, and effects on stakeholders are some of the criteria to be considered while evaluating risks. Untreated risks can be tolerated compared to the significance of the risk and the importance of the policy, program, process, or activity. According to Knight (2006), a risk maybe tolerated if: (a) the level of the risk is so low that specific treatment is not appropriate within available resources; (b) the risk is such that there is no treatment available, such as risk of termination of a project due to change of government; (c) the cost of treatment is manifestly excessive compared to the benefit; or (d) the opportunities presented outweigh the threats to such a degree that the risk is justified. In this step of the risk management process documentation of the acceptability criteria, listing of the risks and reasons for tolerance, and ranking of unacceptable risks should also be included.

3.5. Risk Treatment

Elimination of programmatic risks in health/fitness facilities that may cause catastrophic or critical loss with medium or high frequency would be as simple as ceasing all programs, getting rid of group exercises, weights, cardio machines and locker rooms (Cotten, 2007). However, eliminating the number of activities that health/fitness facilities offer would not be an attractive option to compete in a market driven by customer satisfaction. Therefore, health/fitness facilities should rather try treating risks in various ways (Cotten, 2007).

Risk treatment involves identification, assessment, preparation, and implementation of the range of options for treating risks (Knight, 2006).Treatment options may include: (1) accepting the risk; (2) avoiding the risk; (3) reducing the risk; and (4) sharing (transferring) the risk.

Accepting the risk may be an option if the likelihood and consequences of a particular risk are consistent with the context of an organization. For instance, rare minor injuries to casual indoor basketball players in a health/fitness facility may be considered tolerable due to the limited-contact allowed in the nature of the game.

However, the Guidelines for Managing Risk in Sport and Recreation HB 246:2004 (Standards Australia, 2004c) suggest that definitions such as ‘rare’ and ‘minor’ can be quite subjective and therefore might hinder the analysis of a risk that can actually be more likely to occur and have more severe consequences. Therefore, before accepting a risk a thorough analysis of the risk should be conducted.

Avoiding the risk is an example of likelihood reduction, where undesired events are avoided by undertaking a different course of action. Likelihood reduction is directed towards limiting the chance that something will occur in the first instance. According to Knight (2006) likelihood reduction may be through the selection of alternative approaches, procedural changes, quality assurance, procedures, operational reviews, regular audits, training and skills enhancement, and contract terms to prevent undesired outcomes such as legal liability of accidents or injuries.

Reducing the risk can be through reducing the likelihood and/or consequences of the risk to a tolerable level. Likelihood and consequence reduction is directed to minimising the occurrence and impact associated with a certain risk. For example, balance exercises on Swiss-balls or bosu-balls prescribed by personal trainers and fitness instructors may cause falls with related injuries to participants. In this case, existing industry standards in relation to the exercise prescription strategies and safety precautions for such exercise regimes should be well investigated and communicated to the personal trainers and fitness instructors by in service-training. Written rules and guidelines for using such fitness equipment that are posted on the walls in the designated exercise area of a health/fitness facility can further help reduce the likelihood of injuries to patrons.

Sharing the risk can be described as transferring the responsibility or consequences associated with a particular risk to another party. In this regard, contract terms such as exclusion clauses and waivers used by health/fitness facilities are the most common means of transferring risk to members and exercise participants who agree not to hold the facility and their employees responsible for injuries that may occur during the activity (Eickhoff-Shemek, Herbert and Connaughton, 2009). However, use of exclusion clauses or waivers may not eliminate the risk of legal

liability as such contracts may not be enforceable under all circumstances (**note:** *please see Subsections 6.7 and 6.8 of this Chapter that provide more detailed information as to the enforceability of exclusion clauses and waivers).* Therefore, health/fitness facility operators should not rely on such documents as the sole risk management practice as "[t]hey do nothing to help ensure a reasonably safe environment; nor do they help prevent medical emergencies" (Eickhoff-Shemek, Herbert and Connaughton, 2009, p.385).

Insurance is another common means of transferring risks so as to cover the cost of major losses as a protection against financial catastrophe in return for paying a premium to an insurance company (Sport and Recreation Queensland, 2010). Often risk management is used interchangeably with insurance. However, insurance is only a strategy to have "financial cover … for damage to property and consequential costs (such as loss of revenue or increased operating costs), or liability for the financial consequences of another party due to failure to discharge a legal obligation" (such as breach of duty of care to provide reasonably safe services) (Standards Australia, 2004b, p.77). Furthermore, by transferring the risks the organizations are only taking another risk of whether the chosen body to share the risk will manage the risk effectively or not (Standards Australia, 2004c).

The most common types of insurance for recreational service providers are public liability insurance, professional indemnity insurance, and directors and officers liability insurance (Sport and Recreation Queensland, 2010). Insurance policies can change depending on the contract with the insurer and legislation. According to Eason (2007), many health/fitness facility owners and managers take their insurance policies for granted until they have a claim at which time they find out that they are not completely covered. In this regard, the need for health/fitness facility operators to fully understand the extent, adequacy and exclusions of liability insurance policies is stressed (Cotten, 2003; Mann and Considine, 1993; Standing Committee on Recreation and Sport, 2002).

3.5.1. Evaluating and Selecting Risk Treatment Options

Spengler et al. (2006, p.9) suggests that **"**where the risk of severe injury from a hazard is high but its likelihood is low, it is still wise to take a serious look at developing appropriate safety measures". However, the costs of an intervention may influence the later adoption of that intervention in the industry (Zwerling et al., 1997). Therefore, conducting a 'cost-benefit' analysis is recommended in evaluating risk treatment options (ASC, 2002;Standards Australia, 2004b). Cost benefit analysis involves comparing estimates of costs and benefits in comparable units; normally in monetary terms such as dollars (Figure 5).

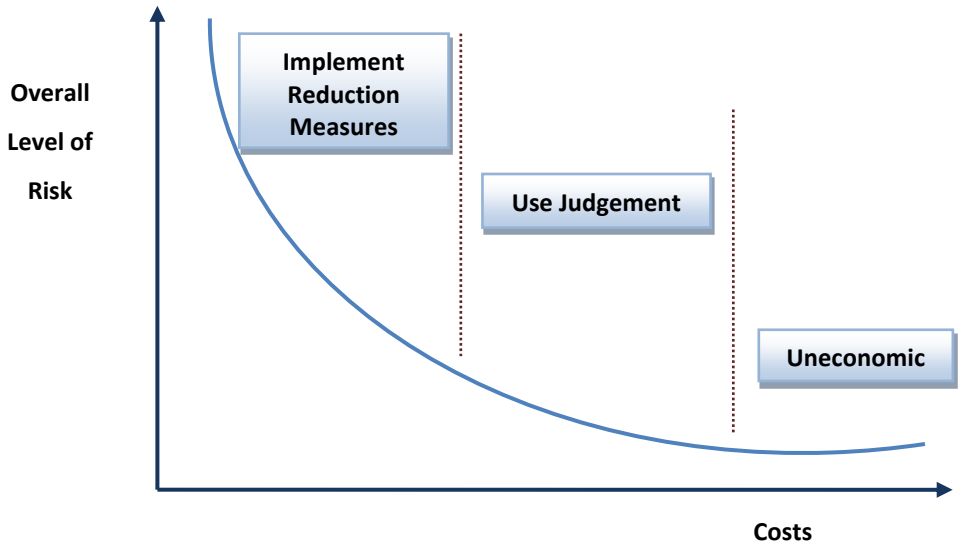

Figure 5. Cost-benefit analysis (Adapted from risk management tool developed by Certified Practicing Accountants, 2004)

The cost evaluation criteria may include additional labour, training of existing or new employees, new equipment, or maintenance costs associated with the use of the intervention (Zwerling et al., 1997). In contrast, the benefits would be a reduction or elimination of costs of injury treatment and/or compensation for liability claims. However, "often it will not be possible to quantify all costs and all benefits and sometimes the greatest benefits are not quantifiable at all"(Standards Australia, 2004b, p. 84). For example, preventing the damage to reputation caused by a major

incident is an intangible benefit and may not be easily quantifiable in monetary terms despite the fact that it may be of greater actual benefit to an organization than just the pure avoidance of compensation costs and loss of revenue.

Alternatives for treating a risk should be evaluated on a risk versus benefit basis so that the cost of implementing an option does not outweigh the benefit that that option would provide (Certified Practicing Accountants, 2004) (Figure 5). For example, Gianotti and Hume (2007) assessed the effectiveness of a rugby 'concussion management education programme' in reducing the number and cost of concussion/brain injury and moderate to serious claims. The cost-benefit analysis showed that the average number of days between concussion/brain injury and the player seeking medical treatment had decreased from six days to four days. In budgetary terms, the two-year cost of 'concussion management education programme' was US$54,810 returning US$12.60 (actual) and US$61.21 (forecast) for every US$1.00 invested (ROI). Therefore, the study showed that 'concussion management education programme' was effective as a risk management intervention with improved benefits such as education of coaches and managers, decreased injury in players, and contribution towards ROI and savings for cost of concussion/brain injuries and moderate to serious claims in rugby.

4. Benefits of Risk Management Programs

Risk management is often emphasized in the literature primarily as an opportunity for sport organisations to avoid and minimise legal liability (Eickhoff-Shemek, Herbert and Connaughton, 2009; Sharp, Moorman and Claussen, 2010). In this line, Eickhoff-Shemek, Herbert and Connaughton (2009, p.383) developed a 'risk management pyramid' and identified seven lines of defence for health/fitness facilities to avoid legal liability claimsthrough implementation of risk management plans. As Figure 6 demonstrates, the first line of defence brought about by the implementation of a risk management plan in a health/fitness facility is creating a professional environment where risk management practices can be implemented by all staff.

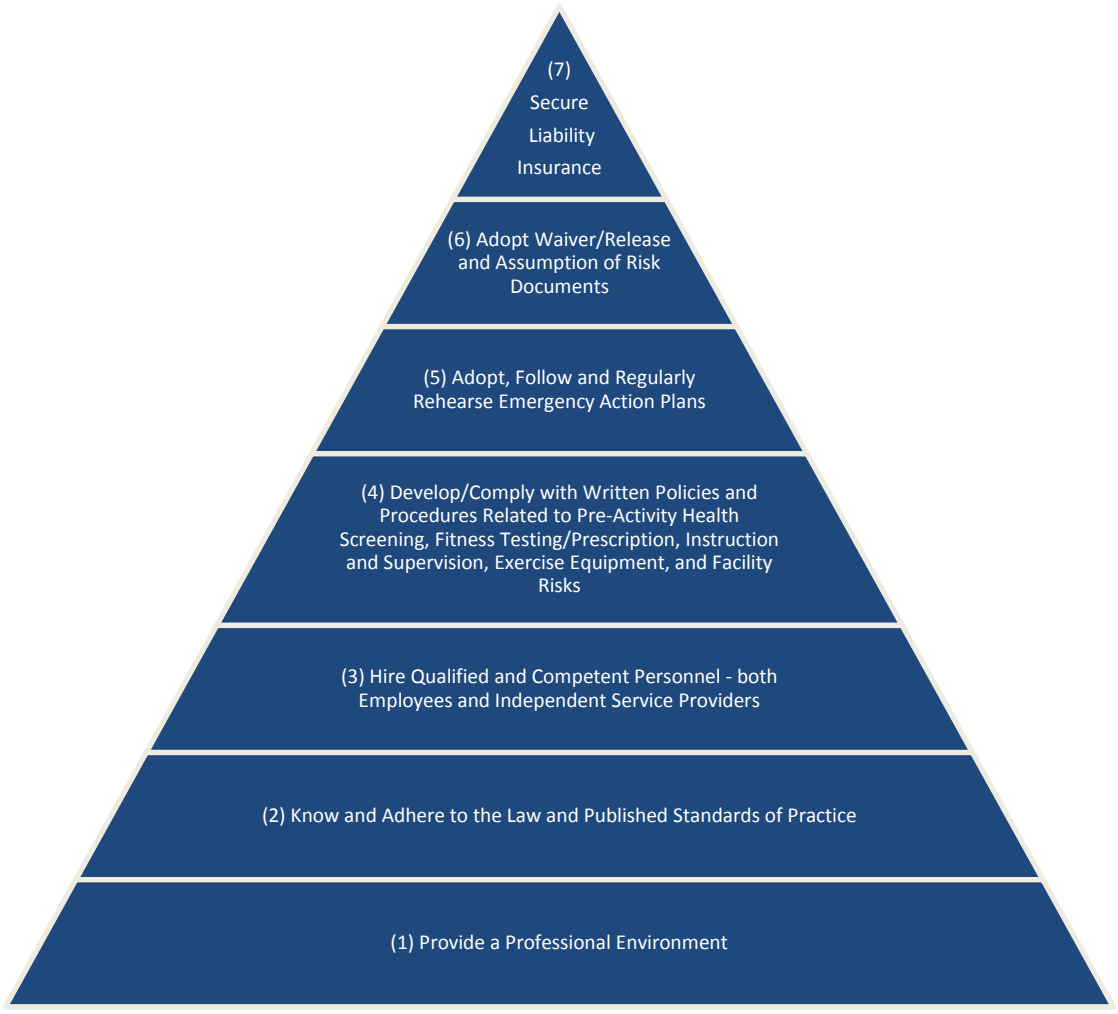

Figure 6. The risk management pyramid - seven lines of defence (Adapted from Eickhoff-Shemek, Herbert and Connaughton, 2009, p. 383)

The second line of defence is attaining knowledge about and adherence to the relevant laws and published standards of practice for compliance with the standard of care. The third line of defence is hiring and contracting with only 'qualified' and 'competent' personnel who can deliver the services safely while carrying out the risk management plan properly. The fourth line of defence is adopting policies and procedures in dealing with pre-exercise screening procedures, health/fitness assessments, exercise equipment, facility risks, and instruction and supervision

provided to the participants that can be used as evidence at the court to demonstrate that no legal duties were breached. The fifth line of defence is having a written emergency plan that is regularly practiced and rehearsed so as to meet the standard of care to be carried out by staff members if a medical emergency occurs. The sixth line of defence consists of various protective legal documents such as liability waivers or risk warnings that health/fitness facilities can have their clients sign or read *before* participating in the proposed activities. Finally, the seventh line of defence for health/fitness facilities is securing liability insurance to protect their financial assets if a claim is filed. However, as stressed in the previous subsection health/fitness facility operators must be aware that insurance neither can relieve nor avoid legal liability (Epstein, 2003).

There are many other benefits that health/fitness facilities can achieve through implementation of sound risk management programs. Such as (Eickhoff-Shemek, Herbert and Connaughton, 2009; Sharp, Moorman and Claussen, 2010):

- a reasonably safe environment for clients as well as employees;
- improved quality of the services provided;
- ability to meet the needs of the clients efficiently;
- increased interest, participation and adherence in the program;
- enhanced image and reputation of the health/fitness club;
- effective management of assets, events, programs, and activities with lower costs and more budget certainty; and
- higher morale, trust, commitment and accountability in the business entity.

In addition, health/fitness facilities can benefit from risk management as a powerful long-term customer service and marketing strategy by sending the message that ‘we care for the wellbeing of our clients’ (Klein, 2006).

5. Framework of the Health/Fitness Industry

As emphasized in Section 3 of this Chapter, establishing the context in which the risks are going to be managed is crucial for any organisation to effectively implement a risk management program. Defining the context includes looking at the business objectives and if any of these objectives interact with the risks. Each activity can embody many hazards and each hazard can lead to many potential risk events. Therefore, understanding the activity, practices, and people involved in carrying out work processes and whether they are sufficiently competent, skilled and experienced are some of the major aspects that should be considered in the context of a health/fitness facility.

According to the *Fitness Industry Code of Practice* of the Australian Capital Territory (ACT), the 'fitness industry' is described as a service industry involving 'fitness service' providers. In general the fitness industry codes of practices in Queensland (Qld), the Australian Capital Territory (ACT), Southern Australia (SA) and Western Australia (WA) state, in slightly different terms, that 'fitness service' includes: (a) a pre-exercise evaluation; (b) fitness assessments; (c) individual exercise program; (d) a group exercise program; or (e) provision of fitness equipment at a fitness centre for use by clients. However, there are certain exclusions as to the definition of 'fitness service' that differs from state to state. For example, according to the *Fitness Industry Code of Practice* of Queensland (Qld) 'fitness service' does not include professional services provided by registered medical practitioners and physiotherapists, services provided by sport clubs or organizations for the playing of or training for a competitive sport, or a service supplied through the hire of a court or other facility for playing sport. By way of contrast, the *Fitness Industry Code of Practice*of New South Wales (NSW) applies to "fitness centres" that provide "fitness services" or "allied fitness services". In the *Code* "fitness service" is described as a general fitness or exercise activity provided by or under the supervision of a registered fitness professional, who has activity specific credentials. "Allied fitness service", is described as a fitness related activity that includes physiotherapy, massage, martial

arts and yoga provided by a suitably qualified professional who may not necessarily be a registered fitness professional.

Viewed in the light of the various state and territory *Fitness Industry Code of Practices* in Australia, the definition of the 'fitness industry' and the types of services that it covers is neither clear nor uniform. Therefore, this study has adopted the more general description provided by the North American Industry Classification System (NAICS). The health/fitness industry (*code number*: 713940) is defined by service providers primarily engaged in operating fitness and recreational sports facilities featuring exercise and other active physical fitness conditioning or recreational sports activities (US Census Bureau, 2010).

For health/fitness facility operators, knowing if the people involved in delivering the fitness services are sufficiently competent, skilled and experienced is crucial for the implementation of an effective risk management program. Subsection 5.1 provides general information about the current training standards in the health/fitness industry, and Subsection 5.2 outlines the standards in the registration of the health/fitness professionals to provide an overview in this regard.

5.1. Training Standards in the Health/Fitness Industry

A standard "sets out specifications and procedures designed to ensure that a material, product, method or service is fit for its purpose and consistently performs in the way it was intended….Standards establish a common language which defines quality and establishes safety criteria" (Standards Australia / Standards New Zealand, 2004). According to the American College of Sports Medicine (ACSM) standards are the base performance criteria or minimum requirements a facility must meet to satisfy a facility's obligations to provide a relatively safe environment in which every physical activity or program is conducted in an appropriate manner (Tharrett, McInnis and Peterson, 2007).

As mentioned earlier in Section 1 of this Chapter, where a fitness instructor's actions violate those standards, the law would refer to the industry standards and if a fitness professional is found not to be complying with the duty of care established by

the standards, they can be found liable for negligence and required to compensate for the harm caused. From this standpoint, health/fitness professionals "must know what sort of safety measures similar organizations are putting into practice and whether these measures themselves become community or industry standards" (Spengler et al., 2006, p.4).

Over the last decade, the health/fitness industry has faced increased litigation due to claims being raised by injured exercise participants arising mostly from the negligent behaviours of the fitness instructors and personal trainers (Eickhoff-Shemek, 2005; 2010). As a result of this, health/fitness industry organizations around the world, such as in the United States (US), Canada, United Kingdom (UK), Europe, and Australia have been committed to redress the disruptive and litigious image of the health/fitness industry by bringing accredited training and certification standards as a self-regulatory model that defines the minimum qualifications required for health/fitness professionals.

While a certificate assures health club owners that instructors have satisfied state or nationally accepted criteria for safety awareness, injury prevention, and knowledge of anatomy and exercise physiology (Nash, 1985), accreditation helps the health/fitness professionals confront the question "who reviewed your certification program?" (NSCA, 2004). Therefore, accreditation can be defined as a means of legally demonstrating to a board, a profession and your certification holders that the certification has been reviewed by a panel of impartial experts that has determined that the training program has met the up to date standards of the industry for health, welfare and safety of the public (NSCA, 2007).

In the United States, the International Health, Racquet & Sportsclub Association (IHRSA) recommended that its member club owners hire personal trainers holding certification from organizations accredited by the National Commission for Certifying Agencies (NCCA) or whose curriculum was accredited by the Council for Higher Education Accreditation (CHEA) and/or the United States Department of Education (USDE) by 2006. Established in 1987, the NCCA is a separately governed accreditation arm of the National Organization for Competency

Assurance (NOCA), an association of certification organizations providing technical and educational information concerning certification practices across a broad spectrum of industries (National Commission for Certifying Agencies, 2007).

Among the NCCA accredited bodies of the health/fitness industry are the National Strength and Conditioning Association (NSCA), the American College of Sports Medicine (ACSM), the American Council on Exercise (ACE), the International Fitness Professionals Association (IFA), the National Academy of Sports Medicine (NASM), and the National Council on Strength and Fitness (NCSF). The NSCA was the first organization to get the NCCA accreditation in the Certified Strength and Conditioning Specialist (CSCS) and National Strength and Conditioning Association-Personal Trainer (NSCA-CPT) certification programs for improved credibility and validity in the fitness profession (NSCA, 2010).

Among more than 300 worldwide certifying bodies for the health/fitness professionals, the ACSM is the most respected. ACSM has had a significant impact over the past several decades on exercise certification as well as developing standards for the health/fitness industry. The aim of ACSM is to promote and integrate scientific research, education, and practical applications of sports medicine and exercise science to maintain and enhance physical performance, fitness, health, and quality of life through research and training for the certification of the health/fitness professionals. Over the last two decades, ACSM has published comprehensive guidelines for operating health/fitness facilities. The third edition of 'Health/Fitness Facility Standards and Guidelines'can be considered as a benchmark that provides advice for the ways in which health/fitness facilities should operate in regard to pre-activity screening; orientation, education, and supervision; risk management and emergency policies; professional staff and independent contractors; facility design and construction; facility equipment; facility operating practices; and signage (Tharrett, McInnis and Peterson, 2007). According to the ACSM`s health/fitness facility standards and guidelines employing fitness professionals who hold training certifications from accredited bodies is one of the major risk management strategies in protecting a health/fitness facility from liability. It demonstrates to courts that their

fitness professionals delivered the fitness services with the reasonableness of a person holding the nationally accredited qualifications (Tharrett, McInnis and Peterson, 2007).

In Canada, there are several organizations that provide certification for health/fitness professionals such as the Canadian Society for Exercise Physiology (CSEP), the Young Men's Christian Association (YMCA), the National Exercise Prescription Accreditation, the Canadian Association of Fitness Professionals (CAN-FIT PRO), the WaterART Fitness Training and Certification Program and the Ontario Association of Sport and Exercise Sciences. The Ontario Association of Sport and Exercise Sciences (OASES) published the third edition of the 'Canadian Fitness Safety Standards & Recommended Guidelines' (Ontario Association of Sport and Exercise Sciences, 2004). 'Canadian Fitness Safety Standards' aim to assist fitness facilities in the areas of fitness related personnel, emergency procedures, communicable diseases, fitness environment, pre-screening and informed consent and special exercising populations to achieve a high degree of member safety, reliability and thrust. Despite the fitness safety standards and existence of numerous organizations that provide certification for the health and fitness professionals in Canada, lack of regulations for personal trainers employed in health/fitness centres has been a major concern (Cova, 2006). In this regard, the need for development of national standards for fitness professionals has been highlighted in order to avoid confusion and misconduct in the Canadian fitness industry.

In Europe, the health/fitness industry began reshaping in 1996 by the European Network of Fitness Associations, which was followed by the establishment of the European Health & Fitness Association (EHFA) in 2001 (European Health &Fitness Association, 2010a). In response to the need for legitimacy in the health/fitness industry in the European countries, the EHFA was restructured in late 2007 as a non-profit standards setting organization for the health/fitness industry in Europe. Currently, the EHFA has National Association partners from sixteen European countries and two international partner organizations namely IHRSA and Federation of International Sport, Aerobics and Fitness (FISAF).

Recently, the EHFA has published the revised *European Qualifications Framework levels 3 & 4 EHFA Standards for Fitness Instructors and Personal Trainers,* which is a competence and skills framework based on job purposes for exercise professionals working as fitness instructors or personal trainers in the European health/fitness industry (EHFA, 2010b). Given the emphasis on the 'occupational purposes' and achievement of desired outcomes, the new framework aims to deliver safe and effective exercises not only as a matter of qualification that needs to be met, but as the purpose of the job that the professionals want to achieve. The concept of 'occupational purposes' was driven from the ideology that purpose oriented occupational standards can recruit fitness professionals with the right motivation and skills to retain new and existing members by meeting their needs and expectations effectively.

In the United Kingdom, the Fitness Industry Association (FIA) was established in 1991 as a not-for-profit organization committed to promoting best practice within health clubs and leisure centres, as well as guiding the public towards improved health and well-being. The FIA represents 2800 private and public health and fitness facility operators and 250 supplier organizations (Fitness Industry Association, 2010). Members of FIA work to comply with a set of performance standards recognised by the UK Government, which cover health and safety, staff training and customer care, and are established under a code of practice. Despite the fact that a code of practice does not have the force of law by itself, health and fitness facilities may be held liable for injuries resulting from a non-compliance with recommendations contained therein (Grainger-Jones, 1998, p. 43).

In Australia, Fitness Australia (FA) became the single national fitness industry association working to raise standards, support, promote and represent the fitness industry in July 2008 (Fitness Australia, 2010b). Fitness Australia is a not-for-profit association representing over 20,000 registered exercise professionals and 1,200 fitness employer businesses. Fitness Australia works with the state associations to encourage uniform business standards across the nation including the development of a network of fitness facilities across the country who employ registered fitness

professionals. In this regard, the *Fitness Australia National Fitness Registration Scheme (NFRS)* aims to provide uniformity across all states and territories in Australia by means of ensuring a safe, minimum standard of knowledge and skill for all fitness professionals working in the industry. Skills of the fitness industry professionals are recognized and assessed according to the nationally-endorsed standards of the *National Fitness Industry Training Package* by 26 nationally recognized registered training organizations (National Training Information System , 2010).

5.2. Registration of Health/Fitness Professionals

As a self-regulatory model to standardisation in the health/fitness industry there has been a move towards registration of health/fitness professionals that was first established in January 2002 in the United Kingdom under the Register of Exercise Professionals (REPs) scheme (Lloyd, 2005; REPs, 2010b). The Register of Exercise Professionals (REPs) was established with the collaboration of the employers organization – the Fitness Industry Alliance, the industry`s sectoral training body-SPRITO, and a number of other leading employers and training providers of the UK health/fitness industry (Lloyd, 2005).

The REPs is a framework developed to provide a system of regulation for fitness instructors and trainers to ensure that they meet the health/fitness industry`s agreed national occupational standards by appropriate qualifications, knowledge, competence and skills to perform specific tasks. Registered fitness professionals have to engage in the REPs program of Continuous Professional Development (CPD), abide by Code of Ethical Practice (REPs, 2009) and have adequate insurance. Fitness professionals achieve registration by proving that their qualifications and training are recognised by the National Occupational Standards (NOS) for exercise and fitness (REPs, 2010a). The NOS were developed by SkillsActive, the sector skills council for active leisure and learning that define the skills and knowledge required to perform particular functions in the fitness industry. Today, in the United Kingdom there are more than 400 training providers recognised by the NOS including YMCAfit, Future Fit Training, Professional Fitness & Education that provide certification and

continuing education to the health/fitness professionals (Register of Exercise Professionals of the UK, 2010c).

Following a major review in 2008-09 of Education and Professional Development in the Fitness Industry, the REPs UK structure, industry standards and qualifications were revised and approved by the SkillsActive Sport and Fitness Employers Group (SAFE) in early 2009. The new structure was heavily influenced by the EHFA standards that focused on skills acquisition for occupational purposes to safely and effectively meet the special needs of fitness industry customers. Under the new registration scheme, health/fitness instructors can join the Register at three different levels (Marnoch, 2009). Gym instructors, exercise to music instructors, aqua fitness instructors and physical activity for children instructors can register at Level 2. Fitness instructors/personal trainers, advanced exercise to music instructors, exercise referral instructors, and yoga, Pilates and EMDP instructors can register at Level 3. Level 4 is for the registration of instructors specialising in cardiac disease, falls prevention, stroke, mental health, back pain, obesity/diabetes, and accelerated rehabilitation in military. There are also REPs non-instructor categories that allow students working toward a Level 2 qualification, fitness managers and fitness tutors and assessors to get registered to REPs.

Levels 2, 3 and 4 have underpinning ‘mandatory’ and ‘specialist discipline specific’ units. This new structure offers the registered fitness professionals the flexibility to access more disciplines and acquire more skills that can provide them with more employment opportunities and a wider client base (Marnoch, 2009). With discipline specific courses offered by the training providers, registered fitness professionals willing to up-skill their qualifications do not have to repeat learning of the ‘mandatory’ units that are common to all qualifications that give entry at a particular level. For example, Level 2 members are able to access Level 3 exercise referral directly, whereas previously only Level 3 members could access this qualification. With this new structure, it is envisioned that the new REPs system not only would benefit its members by providing more skills but would help the United

Kingdom fitness industry gain the much needed trust and respect from the medical professions, public and media (Marnoch, 2009).

In Australia, the REPs is governed and administered by Fitness Australia under the National Exercise Professional Registration Scheme (Fitness Australia, 2010d). Registered health and fitness professionals have to abide by the Fitness Australia Code of Ethics (Fitness Australia, 2010d) and hold appropriate public liability insurance, complete continuing education credits (CECs) (20 CECpoints over every 2 years), and have current Senior First Aid/CPR certification. The educational qualifications required to become a registered exercise professional are; (1) having met the vocational training for National Exercise Professional requirements and qualifications in fitness such as Certificate 3 (Exercise Instructor), Certificate 4 (Exercise Trainer) or Diploma in Fitness (Exercise Specialist); (2) having a higher education or post graduate qualification in exercise science; or (3) having completed a selected non- Australian Qualification Framework (AQF) certification accepted at the Provisional level of registration. Recently, Fitness Australia has introduced the Level 1, 2 and 3 Exercise Professional Registration to Fitness Australia REPs in order to recognize the skills, credentials and contribution of the exercise professionals to the fitness industry. The levels of Registration for Exercise Professionals is determined by a cross tabulation of the qualifications and the years of experience as a registered fitness professional. For instance, a fitness professional holding Certificate 4 who has been registered for 0-2 years is registered at Level 1-Introductory, 2-10 years is registered at Level 2-Intermediate, and more than 10 years can be registered at Level 3, that can be advanced with additional Continuing Education Credits (CECs). In comparison, a fitness professional holding a post graduate degree in an exercise science related field that has been registered for 0-2 years is registered at Level 1-Introductory, 2-4 years is registered at Level 2-Intermediate, and more than 4 years is registered at Level 3-Advanced (Knox, 2010).

The REPs of Fitness Australia is recognized by the International Confederation of Registers of Exercise Professionals (ICREPS) (International Confederation of Registers of Exercise Professionals, 2010). The purpose of the

ICREPS is to promote the recognition of qualified exercise professionals through the co-operation and affiliation of national registration schemes and to promote the international transferability of professional registration. ICREPS exists to serve the worldwide community of exercise professionals through an agreed framework of knowledge and competency standard set for professionals that are recognised through independent registration processes.

6. Potential Risk Areas in Managing Risks in Health/Fitness Facilities

This Section elaborates on some of the possible risk areas that health/fitness facilities in Australia can face in their business operations and of which they have to be aware while developing and implementing their risk management programs. Subsections 6.1, 6.2, 6.3, 6.4, 6.5 and 6.6 illustrate programmatic risks that can have serious consequences such as injuries or death of participants and subsequent legal liability claims against health/fitness facilities. Subsections 6.7 and 6.8 demonstrate some of the most frequently used contractual risk treatment methods by health/fitness facilities and their effectiveness in avoiding risk of legal liability claims.

6.1. Training Strategies Used by Personal Trainers

In 1999 the 'National Physical Activity Guidelines for Australians' (Australian Government Department of Health and Ageing, 1999) was developed through an evidence based consensus process, prompted by the US Surgeon General's report in 1996 on the same topic (United States Department of Health and Human Services, 1996, Egger et al., 1999). These guidelines suggest that for improvements in health indicators such as blood pressure, blood cholesterol and body weight to occur shorter amounts of moderate-intensity activities totalling a minimum of 30 minutes a day on most days of the week is sufficient. Notwithstanding these recommendations, a study conducted in 2009 demonstrated that one in two Australians wrongly believe that they need to "puff, pant and sweat" to achieve physical activity related health benefits and the myth "no pain - no gain" still exists (Pfizer Australia and Sport Medicine Australia, 2009, p.3).

The motto ‘no pain - no gain’, as it is used in the health/fitness industry today, can be described as a motivational strategy that help exercisers push themselves past the point of physical exertion in order to achieve desired physical fitness goals. This exerciser stereotype can be said to have emerged in the late 1970s with the movie ‘Pumping Iron’ that focused on *Arnold Schwarzenegger* going through painful training regimes while getting ready for the 1975 Mr. Olympia bodybuilding competition. However, maybe *Jane Fonda`s* aerobics work-out video series produced in the early 1980s was the most influential in the popularity of this catchphrase where she was frequently quoted saying ‘no pain-no gain’ and ‘feel the burn’ during her exercise routines.

While the ‘no pain - no gain’ training method can be effective for many people, the increased risk of cardiovascular events (Corrado et al., 2006; Mittleman et al., 1993) and musculoskeletal injuries (Colbort et al., 2000) caused by overly vigorous exercise in sedentary and obese/overweight individuals should not be taken for granted. In this light, it is crucial for health/fitness facility operators to understand the risks associated with the training strategies that their personal trainers use.

Recently, the notion of ‘tough love’ has become very popular among personal trainers as a training strategy that entails elements of the motto ‘no pain - no gain’. ‘Tough love’ can be described as ‘the practice of taking a stern attitude towards a relative or friend suffering from an addiction’ (*The Times English Dictionary*, 2000, p. 1616). According to the fourth edition of the *Webster New World College Dictionary* (*Yourdictionary.com*, 2010) ‘tough love’ is not only an attitude but is:

> a disciplinary technique, as for a young person or a loved one, in which a seemingly harsh or unfeeling course of action is chosen deliberately over one demonstrating the tenderness or forbearance instinctively felt.

In this light, ‘tough love’ constitutes a relationship between a personal trainer and a client, where the client can be subjected to the harsh exercise regimes of the personal trainer in order to achieve the expected physical fitness goals. As mentioned earlier in Subsection 1.2 of this Chapter, tort liability can occur in the presence of an act (or omission to act), causation, fault, protected interest and damage. In the case of

‘tough love’, the act would be the intervention of harsh exercise regimes by the personal trainer who pushes the client over his/her physiological limits. Causation would be the fact that this act caused mental and/or physical damage to the client. Fault would be the failure to provide a reasonably safe program that addressed the particular needs of the client, and the personal damage that the client suffered would be considered by law in regard to liability. As a result, the personal trainer who gave ‘tough love’ and caused physical or mental harm to his/her client may be liable in the tort of negligence and required to compensate the client for the damages.

In a recent 2010 television commercial the notion of ‘tough love’ has been associated with the qualifications a personal trainer is professed to have by a leading fitness industry education provider – the Australian Institute of Fitness (AIF). In this particular commercial, one of ‘The Biggest Loser’ trainers Michelle Bridges was the face of the AIF, delivering the message “...every day I am giving tough love, and I am loving it!...If you think you have got what it takes to be a personal trainer come and join the Australian Institute of Fitness...”(YouTube, 2010). In this respect, it is important to understand the concept and the philosophy that underpin the ‘The Biggest Loser’competition series.

‘The Biggest Loser’ is an Australian reality television show based on the American version that was first broadcast in 2004. Despite the fact that ‘healthy living’ motives underpin ‘The Biggest Loser’ competitions, the contestants are chosen from overweight and obese people of various age groups and social backgrounds who are being pushed over their physiological limits with ‘uber-boot-camp-style’ (*Los Angeles Times,* 2009) vigorous exercise regimes in order to lose the most percentage of body weight in the shortest period of time possible for a cash prize of AU$200.000.00.

Irrespective of the fact that the ratings of ‘The Biggest Loser’ were considered a great success (Downie, 2007, Network Ten, 2007), the show received criticisms by exercise and health experts for promoting risky weight loss techniques (Vickery, 2010*; Los Angeles Times,* 2009) that can dramatically increase the risk for some abnormal events such as a heart attack, a stroke or hypoglycaemia in overweight and

sedentary people who might have undiagnosed medical conditions such as high blood pressure, heart disease and diabetes. For example, in the 2010 series of 'The Biggest Loser' a 56 year old contestant had to leave the show after receiving medical treatment in hospital for hypotension and kidney dysfunction (Shearer, 2010). The training regimens such as plyometrics (drills such as jumping on boxes used for improving explosive power) or sprinting full-speed on a treadmill on 'The Biggest Loser' were also criticized for being unsuitable and ineffective for fat loss purposes. Such that some of the unconditioned contestants were hospitalized and forced to leave the competitions due to multiple joint injuries and stress fractures (Scott, 2009; Vickery, 2007).

Over the last decade, numerous cases have demonstrated that training strategies adopted by personal trainers can cause serious injuires to their clients that can result in legal liability claims raised against health/fitness facility operators. In the case of *Neill v Fallon & ors* (1995) in the Queensland Court of Appeal, the plaintiff had a history of lower back injury and therefore he told his personal trainer that he wanted to avoid exercises such as squats that put a strain on his back. However, the personal trainer, without doing any fitness assessments, told the plaintiff that if he did the squats exactly the way she told him to do, he would have no trouble. When the plaintiff demurred, the personal trainer threw down her pen on the table and told him "[w]ell, if you don't do them you may as well leave" (p. 4). The plaintiff was mentally committed to become a successful competitive bodybuilder and therefore followed the instructions of the personal trainer that he considered to be an expert in her field. As a result, the plaintiff sustained serious injuries to his lower back resulting from the squat component of his training program. He filed a claim arguing negligence on the part of the gym operator. However, the court upheld the exclusion clause that the plaintiff had signed as part of his membership agreement and therefore the gym operator was relieved from liability.

In the case of *David Michael Wilson v Nilepac Pty Ltd as Vision Personal Training (Crows Nest)* (2009) in the New South Wales Supreme Court, the plaintiff argued that when he had turned up for his work out pretty hung over and suggested

the personal trainer should go easy on him that day. The personal trainer, who had very recently acquired his Australian qualifications, responded to the plaintiff "[t]here's nothing better for a hangover than exercise. We'll have to smash you" (para.19) and increased the level of intensity of the plaintiff`s exercises that day. As a result, the personal trainer`s remedy for hangover caused the plaintiff to suffer from serious injuries to his back and to undergo surgery. Wilson made a series of allegations related generally to the exercise program delivered by Vision being unsafe and unsuitable. He argued that the injury to his back was caused by one or both of two "dangerous" exercises performed during a weights session. The first was an exercise known as a horizontal leg press. The second was described as an exercise that required Wilson 'to twist from side to side whilst sitting up from a prostrate position and catching a heavy medicine ball.' Considering the expert testimony, the judge was satisfied that the injury was caused or materially contributed to by the twisting component of the medicine ball exercise. Besides, the judge agreed that the exercise was not a recommendation within the training standards of fitness industry and its prescription amounted to the breach of the relevant standard of care. Surprisingly, however, the judge decided that there was no breach of standard of care in relation to the training and supervision provided, as the personal trainer held the minimum qualifications required to become a personal trainer in Australia. Therefore, the defendant was not found liable in negligence.

In *Rostai v Neste Enterprises* (2006) in the California Court of Appeal, Rostai suffered a heart attack due to the negligence of his personal trainer who aggressively trained him on his very first work-out, despite the fact that he was overweight and his physical condition was poor. Rostai`s personal trainer put him through a workout that started with walking on a treadmill for 12 to l3 minutes followed by inclined bench dumbbell presses for 10 repetitions with 20 kg weights followed by 10 more repetitions with slightly heavier weights. On completing these two sets of inclined bench presses, the plaintiff reportedly asked for a break. However, the personal trainer said, "Later," and then had him begin 10 push ups. Then, when the plaintiff again asked for a break falling out of breath, the personal trainer told him to do ten more sit-

ups and then was instructed to return to the incline bench to exercise this time with heavier weights and at a faster tempo. However, after 4 or 5 repetitions, the plaintiff said that he could do no more and stopped. At that point, the personal trainer reportedly pointed to a nearby woman and said, "Come on, don't you want to get some of this a**? " Following that comment, the personal trainer had the plaintiff lie down on a mat and begin leg lifts as he pushed the plaintiff`s legs towards his head 10 to 12 times. Toward the end of this particular exercise, the plaintiff apparently began to experience chest pain and ultimately told the personal trainer that he was out of breath, could not breathe and needed some water. The workout at this point stopped but after about five minutes the plaintiff said, "Call 911, I think I'm having a heart attack." The plaintiff did in fact suffer a heart attack. After this described workout, the plaintiff filed a negligence lawsuit against the facility and the trainer. In light of the evidence provided by the plaintiff, the appellate court stated that the trainer did not accurately assess plaintiff`s level of fitness and therefore may have misinterpreted plaintiff`s complaints such as tiredness, shortness of breath and profuse sweating as usual signs of physical exertion rather than symptoms of a heart attack. On the contrary, the court determined that a heart attack was a risk inherent in the type of activity that the plaintiff undertook and ultimately did not find the defendant liable in negligence. However, as Herbert and Herbert (2007, p. 54) outlined:

> [f]or the vast majority of clients with latent or diagnosed heart diseases, the steps of preliminary screening, physician review, and reduction in exercise demand (intensity) should considerably reduce the alleviant risks and could have been viewed by this court as a fundamental duty of the PFT [personal fitness trainer] and one owed to the client as part of the PFTs minimum skill set. Many would advocate - given the substantial body of industry standards and guidelines available on this topic - that the court should have adopted a more responsible view of the duties owed by PFTs to their clients.

In *Howard v Missouri Bone and Joint Center, Inc.* (2010) in the United States Court of Appeals, the plaintiff Howard was recovering from an ankle injury that he had experienced while playing football. Howard went to Missouri Bone and Joint Center (MBJC), an orthopaedic and physical training clinic in St. Louis, Missouri, to improve his football skills. A certified athletic trainer employed by MBJC first

provided Howard with fitness evaluations to estimate the maximum amount of weight Howard could lift while performing certain exercises such as bench press and squat lifts. However, as his trainer later testified, Howard did not actually do squat lifts as part of his assessments due to time constraints. Neither was he asked the last time he had exercised. Howard had not trained his lower body parts for the past 12 weeks due to his ankle injury. The trainer designed Howard a training program using a 'pyramiding' technique that required progressive increase of loads with fewer repetitions towards the last sets. On 10 January 2001, the day the injury occurred Howard was performing a set of squats when he felt a pop and a sharp pain in his lower back. Howard immediately informed his trainer of this pain, however, the trainer responded "no pain - no gain" and told Howard that he should "push through it". As a result Howard completed the set of squats and kept on doing stretching and riding a stationary bike leaving him with a herniated disc and a permanent damage in his back. In August 2005, Howard filed an action against MBJC, alleging that MBJC was negligent by: (1) failing to conduct proper pre-exercise fitness evaluation tests; (2) instructing Howard to continue to work-out after being advised of his back pain during the work-out; and (3) failing to discontinue Howard`s workout after being advised of his back pain. According to the expert testimony of Howard`s neurosurgeon, Howard`s injury was caused by the January 10 incident. It was also testified by a certified athletic trainer and director of Athletic Training at Simpson College that the trainer breached the standard of care by improperly conducting pre-exercise evaluations and telling Howard to continue lifting, even after Howard felt significant pain in his back. In light of all evidence, the jury gave a verdict for Howard in the amount of US$175,000. When MBJC appealed, the appellate court stated that the question of causation was properly presented to the jury at the trial and allowed the jury verdict for the negligence of the athletic trainer to stand.

According to Herbert (2011), even though *Howard v. Missouri Bone and Joint Center* (2010) was filed against a service provider in regard to the alleged conduct and omissions of an athletic trainer, the principles are equally applicable to other similar services provided by professionals including personal trainers, rehabilitation

specialists, or strength and conditioning coaches. As Gillian (2004) contends, whether trainers with 'tough love' exercise strategies can really distinguish a 'good pain' (that a client could work through) from a 'bad pain' (which will lead to the client`s deterioration) is controversial. In this regard, Herbert stresses that (2011, p.6):

> [t]he athletic trainers` commentary about pushing through the pain and "no pain, no gain"… really represents an out-dated and even potentially dangerous mindset that can lead to injury or aggravation of injury to some participants. A good number of claims and lawsuits against fitness professionals arise out of similar scenarios.

As Alan Gordon, an exercise, sport and nutritional specialist, suggests:

> [s]ome people do hire personal trainers to be pushed- and that in itself is fine. But it`s up to the trainer to push them correctly and safely within the boundaries of their physiologically tested and established capabilities. (as cited in Kirsch, 2009)

Therefore, implementation of risk management practices such as pre-exercise screening procedures by all personal trainers and fitness instructors is crucial. For example, if as a result of pre-exercise screening it is found that the client needs assistance that exceeds a fitness professional`s scope of practice, one of the strategies involved in the pre-screening procedures should be to have an exercise referral system in place to guide that client to a health professional (Atkinson, 2001). According to Nysewander and Duffy (2009, p.21) it is vital to refer a client to an appropriate health practitioner if the client suffers from: (a) acute pain; (b) limited range of motion; (c) a recent back injury; (d) continual stress felt in the back during exercise; and (e) obvious or severe spinal structural deviations. Furthermore, the reporting or observation of sudden participant pain should result in prompt evaluation of that pain and when distinguished from stress or fatigue should lead to a cessation of activity and referral to a health care provider (Herbert, 2011).

Having personal trainers holding nationally accredited qualifications can be a very good defense in satisfying the courts that the services were delivered reasonably safe within the scope of the standard of duty care (*David Michael Wilson v Nilepac Pty Ltd as Vision Personal Training (Crows Nest),* 2009). However, not all personal

trainers have the same degree of experience, knowledge and skills to identify the difference between a normal pain caused by an intense workout and the type of pain that signals a musculoskeletal injury or an adverse health outcome such as heart attack (Kirsch, 2009). Health/fitness facility managers should "[n]ever assume that because someone has appropriate credentials and work experience that they are instructing properly" (Eickhoff-Shemek, 2005, p. 31). In this regard, health/fitness facility managers are advised to constantly investigate, identify and verify the ways in which their staff and personal trainers in particular are delivering their services in order to have control over risks to the safety and health of their customers (Herbert and Herbert, 2007, p.53).

6.2. Maintenance and Inspections

Systematic inspection of facilities and equipment can be a key to managing and reducing risks in health/fitness facilities (Brown, 2003). Regular inspections can have a direct impact on liability that may arise as a result of, for example, falling and slipping accidents that can produce significant damage and costs.

The consequences of a slip and fall accident during a group exercise program in a gymnasium was illustrated in *Kovacevic v Holland Park Holdings Pty Ltd* (2010) in the District Court of Queensland. The plaintiff Kovacevic was undertaking a group fitness class at a gymnasium when she slipped and fell, suffering a fracture of her left ankle in 2005. Kovacevic alleged that her injury was caused by the negligence or breach of contract by the owner and the operator of the gymnasium. The exercise programme, called "Body Attack", was a relatively vigorous form of exercise designed to build up the heart, and involved all of the participants performing a series of particular exercises together while particular music was played. The exercise program had been put together by a business which designs these programs and provides the music for them. Hence, the particular exercises to be performed, and the length of time for which they were to be performed, were predetermined. The instructor of the class was an independent contractor, who demonstrated the exercise

to be performed for each part of the program and encouraged vigorous participation in the exercises.

The particular exercise during which the plaintiff was injured occurred towards the end of the session. The exercise was described by the witnesses as involving taking three steps to one side and then three steps to the other side, but it was to be performed quite vigorously so that ordinarily there would be only one foot on the floor at a time. Kovacevic's evidence was that as she made the third step on her right foot, instead of gripping the floor, she slipped to the right twisting her left ankle with a fracture in an effort to maintain balance. An ambulance was called that took her to the hospital, where she underwent surgery.

The floor of the group exercise room where the accident took place was a sprung wooden floor with a polished and coated surface. The surface treatment used for the floor was a conventional treatment for a wooden floor of a kind frequently used in gymnasia. Its function was essentially aesthetic, and did not have any particular slip resistant characteristics. When the floor was tested for its friction properties it was revealed that although the floor had a reasonable slip-resistant character when it was dry, it became much more slippery when it was wet. In these circumstances, the trial judge McGill was, on the balance of probabilities, convinced that the plaintiff's right foot had slipped where the floor at that particular point was slippery with droplets of perspiration.

The question of negligence on the defendants then was considered in this context. The judge affirmed that it was reasonably foreseeable in the circumstances of the case that a fall could result in serious injuries. A vigorous exercise like 'Body Attack' was likely to stimulate perspiration on a coated timber floor and cause slips and falls during routines with significant lateral forces when a foot hits the ground. Therefore, Judge McGill found that there was a duty on the part of the gym operator to take reasonable care to mop up perspiration which might be on the floor or to prevent injury being suffered by a person engaging in such an activity. There was further consideration of the fact that despite previous incidents of slips and falls during the class, and industry (designers of the exercise program 'Body Attack')

recommendation that steps be taken to wipe-up perspiration during the exercise class no particular measures were taken by the gym operator. In addition, the trial judge was also not satisfied that the air-conditioning provided at the gymnasium was sufficient to prevent perspiration during vigorous exercise. Based on these findings, Judge McGill found the gym operator negligent in causing or permitting such a vigorous exercise class to be conducted, without taking precautions to prevent perspiration on the floor and the consequent risk of slipping and injury.

Systematic inspections as part of a health/fitness facility preventative maintenance program is also crucial to detect any fitness equipment defects, such as worn out cables in torque producing fitness machines or loose screws that secures the fitness machines. In *Mennega v Lane Cove Fitness Centre* (1999) in the New South Wales Supreme Court, the plaintiff Mennega brought a legal action against the defendants for breach of duty of care in respect of injuries he sustained whilst using fitness equipment at the fitness centre. On 6 January 1995 the plaintiff was using a piece of equipment known as a Hi-Lo pulley machine that works by pulling down a handle which causes a weight to rise via a cable and pulley. As the plaintiff was using the equipment it came away from the floor and fell on top of the plaintiff, causing severe injuries to his back, head and shoulders. As a result of the back injury, the plaintiff suffered from permanent impairment of function and chronic back pain causing him disability for the rest of his life. Considering the circumstances of the case the court gave verdict for the plaintiff against the defendants for breach of duty of care.

In *Gale v New South Wales* (2005) issues related to the maintenance and inspections of a gymnasium were investigated. Gale was employed as a fitness instructor in the gymnasium of the Corrective Services at Long Bay Prison that was owned and operated by the defendant. The duties of Gale as a fitness instructor included giving instruction to organized groups and the day-to-day maintenance of the equipment which was limited to cleaning, oiling and other minor matters. Major maintenance was in the defendant's hands. On 20 July 1998, Gale was preparing for a class in the gymnasium. When a weight machine got stuck, Gale tried removing the

pin. The pin then dislodged and the heavy weights on the machine fell crushing her right foot.

Gale sued the department alleging that the machine was not well maintained and that the respondent should have foreseen that if it broke down the appellant would attempt to fix it. The trial judge held that the accident was the appellant's own fault. As an analogy his honor used cases such as *van Der Sluice v Display Craft Pty Ltd* (2002) to show that the defendant had put in place an experienced and skillful instructor to allow him to assume that she would be able to deal competently when dangerous or risky tasks arose. However, the plaintiff appealed to the New South Wales Court of Appeal on the grounds that the trial judge failed to disclose his reasoning process in the judgment and erred in his assessment on the question of foreseeability of harm. The appellant contended that a fitness instructor had a mere obligation to keep the gymnasium in working order and did not have duties as a skilled machine repairer. Besides, the appellant submitted that as the judge had failed to make any analysis of the duty of care and breach problems in the case, including questions of foreseeability, it was a case that must go back to the District Court for a proper trial. In support of this submission, the appellate judges stated that the trial judge should have applied *"The Shirt Calculus"* test in *Wyong Shire Council v Shirt* (1980, para. 47) to ask whether a reasonable person in the defendant's position would have foreseen a risk of injury to a class of person including the plaintiff, and, if so, what a reasonable person would have done in response to that risk. Further, the Court of Appeal agreed with the appellant that the risk was neither far-fetched nor fanciful, and that the risk of such an accident of the general type occurring was foreseeable. All in all, the Court of Appeal highlighted that there was some evidence on each of the aforementioned issues on which a court might have found for the appellant, and therefore the appellant was entitled to a retrial.

In the case of *Stadt v United Center Joint Venture (UCJV)* 2005 in the Northern District of Illinois, the plaintiff claimed for injury damages caused by slipping and falling into a puddle at the stadium (Carroll and Baker, 2006)**.** Stadt, who had prosthesis below his knee, was leaving a hockey game when the event happened.

Although he had seen the wet and slippery floor and tried using the support of the wall, he could not help falling down. As the guest service representatives arrived and inspected the incident, they reported a puddle of approximately 1 meter in diameter and a beer cup next to it. Stadt alleged that the defendants were negligent in maintaining the premises in a reasonably safe condition despite their constructive notice of the dangerous condition. However, the defendants argued that they could not be held liable as they had no actual knowledge of the wet floor. The court reassured that a facility owner or operator may be liable for a person`s injuries based on a dangerous condition if they: (1) knew or should have known of the condition that the plaintiff presents as an unreasonable risk of harm; (2) should have expected that the plaintiff would not discover the danger, and (3) failed to exercise reasonable care to protect the plaintiff from the danger (*Lewis v Spagnolo*, 1999).

Additionally, the court stated that a constructive sign notice can be established when;

> ...a dangerous condition exists for a sufficient amount of time such that it will be discovered through the exercise of ordinary care, or the dangerous condition is part of a pattern of conduct or a reoccurring pattern. (*Culli v. Marathon Petroleum Co.*, 1988)

Eventually, the court decided that the defendants could not notice each spill occurring in the stadium, including the one, which caused the plaintiff's fall. Therefore, the court did not find the defendant liable. However, this case should be a warning for health/fitness facility owners and managers to conduct proper inspections and take reasonable precautions against dangerous conditions that may exist in their facilities in order to maintain safety of all persons affected by their services and facilities (Carroll and Baker, 2006).

6.3. Pre-Activity Screening

In the United States, the national public health agenda has been promoting and emphasizing the benefits of moderate to vigorous physical activity against the detrimental effects of sedentary living (US Department of Health and Human

Services, 2001). Appallingly, the incidence of a cardiovascular event during exercise in patients with cardiac disease is estimated to be 10 times higher than that of healthy persons (Fletcher et al., 1995). However, in a study conducted in Massachusetts, nearly 40% of health/fitness facilities reported that they did not routinely use a pre-exercise screening interview or questionnaire to evaluate new members for symptoms or history of cardiovascular disease, and 10% stated that they did not conduct any initial cardiovascular health history screening (McInnis, Hayakawa and Balady, 1997).

As a result, the American Heart Association (AHA) and the American College of Sports Medicine (ACSM) published a joint statement to make recommendations about cardiovascular screening procedures at health/fitness facilities using a tool such as the Physical Activity Readiness Questionnaire (PAR-Q) or health appraisal questionnaires (Balady et al., 1998). In line with these recommendations, health/fitness facility standards that have been published by organizations such as the ACSM (Tharrett, McInnis and Peterson, 2007), International Health, Racquet & Sportsclub Association (IHRSA) (IHRSA, 2005), Medical Fitness Association (MFA) (Medical Fitness Association, 2006), Young Men`s Christian Association of the United States of America (YMCA of the USA) and the Ontario Association of Sport and Exercise Sciences (OAES, 2004) similarly state that all facilities offering exercise equipment or services must offer a general pre-activity cardiovascular risk screening by using tools such as the PAR-Q or a specific pre-activity screening tool.

In order to minimise risk of sudden cardiac arrest (SCA) and to increase the safety of sport participants the PAR-Q was originally developed by the British Columbia Ministry of Health as a simple and effective health screening instrument (British Columbia Ministry of Health, 1978). However, due to concerns that the original PAR-Q screened out an excessive proportion of apparently healthy older adults, it was later revised by an Expert Advisory Committee of the Canadian Society for Exercise Physiology to reduce unnecessary exclusions (Thomas, Reading and Shephard, 1992). The revised PAR-Q is a two-page questionnaire that asks questions of the participant to easily identify major health conditions, signs or symptoms

suggestive of coronary heart disease, risk factors for cardiovascular disease, medications, or other major medical conditions that may elevate the participant`s risk of medical complications during exercise (Canadian Society of Exercise Physiology, 2010). If the person filling out the PAR-Q answers 'YES' to any of the questions, they are advised to see their physician and find out if they are able to exercise safely in a community exercise program. If the person filling out the PAR-Q answers 'NO' truthfully to all of the questions, they are reasonably assured that they can begin an exercise program as long as they start out slowly and gradually advance the intensity of their exercise. They are also advised to take part in a fitness appraisal evaluation to determine their basic fitness to plan the best way to live actively. It is also highly recommended that they have their blood pressure evaluated, and if it their reading is over 144/94 to talk to their doctor before they start becoming much more physically active.

Research indicates that obtaining prior knowledge of identifiable risk factors by even simple screening questionnaires such as PAR-Q have the potential to shed light on the incidence of cardiovascular disease, and the triggering factors for a heart attack (Shephard, Thomas and Weller, 1991). For example, Corrado et al. (2006a) investigated the effects of pre-participation screening interventions on the incident rates and cardiovascular causes of sudden death in young competitive athletes. It was reported that the annual incidence of sudden death among athletes 12 to 35 years of age decreased 89% from 3.6 deaths to 0.4 deaths per 100 000 athletes with screening. However, health/fitness facilities must be aware that, if clients are not completely honest or give erroneous answers to the questions in a pre-exercise questionnaire such as the PAR-Q, they may not get the close attention by the supervisors required to avoid injury or death (Humphrey and Lakomy, 2003). Therefore, health/fitness professionals are advised to take into consideration other coronary risk factors such as use or exposure to tobacco within the last 6 months, hypertension, use of hypertension medication, abnormal cholesterol and blood sugar levels, obesity, and sedentary life style factors (less than at least 30 minutes of moderate intensity aerobic exercise 5 times a week) (Haskell et al., 2007).

According to ACSM`s health/fitness facility standards the pre-activity screening can also be repeated among existing members at regular intervals (Tharrett, McInnis and Peterson, 2007, p.9). From one perspective, health/fitness facilities repeating pre-activity screening at regular intervals can send the message to their members that they follow-up and care for the well-being of their patrons and enhance trust in their facilities. From another perspective, repeating pre-activity screening at regular intervals can be a good risk management practice for health/fitness facilities to identify the risk of medical complications that their clients may develop at a later stage of their membership.

According to the ACSM`s standards, if as a result of a pre-activity screening activity a facility becomes aware that a member or user has a known cardiovascular, metabolic, or pulmonary disease, or any other major self-disclosed medical concern, that person must be advised to consult with a qualified healthcare provider before beginning a physical activity program (Tharrett, McInnis and Peterson, 2007, p. 9). In this regard, the ACSM`s standards also state that health/fitness facilities must have a risk stratification system in place (Tharrett, McInnis and Peterson, 2007, p.9). The risk stratification is a process by which persons are assigned to low, moderate, or high risk groups that can help health/fitness facilities make appropriate recommendations for medical examinations, physical activity/exercise, exercise testing and physician supervision (Thompson, Gordon and Pescatello, 2010, p. 22). However, it is of vital importance that results of pre-activity screening are documented and interpreted by qualified staff who can use sound judgement to avoid unnecessary medical evaluation expenses that can be a barrier to exercise participation (Balady et al., 1998).

The use of pre-exercise questionnaires by health/fitness facilities in Australia is only regulated in the Australian Capital Territory (ACT) as part of the *Fair Trading Fitness Industry Code of Practice 2009*. In other states such as New South Wales (NSW), Tasmania (Tas), and Victoria (Vic) the *Fitness Industry Code of Practice* is published as an industry voluntary code administered by Fitness Australia. Despite the fact that these Codes are similar, certain differences exist in relation to pre-exercise screening procedures.

According to the *Fair Trading (Fitness Industry) Code of Practice 2009* (ACT) s9:

> 1) A supplier shall not enter a membership agreement with a consumer unless the consumer completes a pre-exercise questionnaire, provided by the supplier, in relation to the consumer's risk in participating in the fitness service.
> 2) Where answers to a pre-exercise questionnaire indicate, in the opinion of the supplier, that a consumer may be at risk from participating in a particular fitness service, the supplier shall not supply any fitness service to the consumer unless the consumer:
> (a) provides evidence from; or
> (b) states in writing that he/she has received advice from; a medical practitioner or an appropriate health professional to the effect that the consumer is, in the opinion of the practitioner or the health professional, not at risk from participating in the proposed fitness service.
> 3) Where a consumer provides evidence that they may be at risk from participating in a fitness service under subclause (2) a supplier shall not provide a fitness service until an appropriately qualified person has provided advice to the consumer in relation to an appropriate fitness program.

As stated in the *Fitness Industry Code of Practice 2009* (ACT) s9 (2) it is left to the supplier`s personal judgement to determine the level of risk of a person participating in a particular activity driven from the results of a pre-exercise questionnaire. Further, a health/fitness service provider can easily supply any fitness service to a person, who simply states, in writing that he/she received advice from a medical practitioner or an appropriate health professional that there is no risk in participating in the proposed fitness service.

According to the *Fitness Industry Code of Practice* (NSW) s 26 a health/fitness facility must not provide a fitness service to a casual user or enter into a membership agreement with a consumer unless the consumer completes a pre-exercise questionnaire and it is assessed by a registered fitness professional. According to s 27 of the *Code*, if the result of a pre-exercise questionnaire reveals that a consumer may be at risk from participating in a fitness service, the facility must not supply any fitness service unless the consumer states that he or she has received advice from a medical practitioner or any appropriate health professional. Further, s 28 of the *Code* states that:

> [w]here a Fitness Centre receives evidence that the Consumer may be at risk from participating in a Fitness Service under Clause 26, a Supplier must not provide that service until an appropriately qualified person has provided advice to the Consumer in relation to an appropriate fitness program.

The *Fitness Victoria Business Member Code of Practice*s s 24 similarly states that a health/fitness facility must not provide a fitness service to a casual visitor or enter a membership agreement with a consumer unless the consumer completes a pre-exercise questionnaire in relation to the consumer's risk in participating in a fitness or exercise service. The *Fitness Victoria Business Member Code of Practice* differentiates from the *Fitness Industry Code of Practice* of NSW in stating that a health/fitness facility can provide services if the consumer states not only that they have received advice and clearance from a medical practitioner or any appropriate health professional but any appropriate fitness professional. However, the inclusion of "any appropriate fitness professional" into the statement causes ambiguity and may put the customers under more risk as the extent of knowledge, education and skill that a fitness professional is professed to have cannot be expected to be at the same level as a well qualified medical practitioner or an appropriate health professional.

Although the ACSM`s standards indicate that health/fitness facilities must have a risk stratification system in place to use in the pre-exercise screening process (Tharrett, McInnis and Peterson, 2007), only the *Fitness Tasmania Code of Practice for Fitness Facilities* indicates what a health/fitness facility should do according to the level of risk of a person which has been determined as a result of a pre-exercise screening. Section 2 (20) of the *Fitness Tasmania Code of Practice for Fitness Facilities* states that:

> [c]ustomers who have been identified as being at "MODERATE RISK" must either sign a waiver that they have been cleared by their treating Doctor to commence an exercise program or provide a written referral from their Doctor to that effect.

What is at stake in this particular statement is that there is no explanation or reference provided in regard to which risk stratification method health/fitness facilities should use while identifying individuals as 'moderate risk'. This gap in

information can be an obstacle for health/fitness facilities in adapting the *Code*, as the PAR-Q that the *Code* advises the facilities to use does not assign individuals to different levels in a particular risk stratification system. Besides, assuming that the risk stratification used in the *Code* is cited from the ACSM`s guidelines (Tharrett, McInnis and Peterson, 2007), then asking 'moderate risk' individuals to provide a written referral from their doctor may cause unnecessary exclusions. The ACSM`s risk stratification suggests that such individuals may safely engage in low to moderate intensity physical activities without the necessity for medical examination and clearance (Thompson, Gordon and Pescatello, 2010, p.22).

Even though there are inconsistencies and lack of information as to the use of pre-activity screening procedures in the Australian health/fitness industry, the standard developments in the fitness industry highlights the importance of the pre-activity screening procedures in health/fitness facility risk management programs. As mentioned earlier in Subsection 1.2 of this Chapter, critical in the assessment of breach of duty of care by courts is a determination of the reasonable standard of care that can be expected in the particular industry/profession in regard to safety risk management practices and standards. In this regard, the case of *Belna Pty Ltd v Irwin* (2009) illustrates how the mere use of a pre-exercise questionnaire before any exercise program is prescribed may not be effective in satisfying the standard duty of care owed to a participant, unless a comprehensive health history is sought to fully understand the nature of any pre-existing physical or injury type problems that are revealed as a result of a pre-activity screening. The circumstances of this particular case are explained in more detail in Subsection 6.7 of this Chapter.

6.4. Use of Automated External Defibrillators (AEDs)

Sudden cardiac arrest (SCA), which is often associated with coronary heart disease, is one of the leading causes of premature death in the world (Yusuf et al., 2001; Fischer and Fuster, 2009). Approximately 400,000 to 460,000 people in the United States (Rosamond et al., 2008), 700,000 people in Europe (Sans, Kesteloot and Kromhout, 1997), and 20,000 people in Australia (St John Ambulance Australia, 2010) die from

SCA each year. Most such SCAs occur out of hospitals (Becker et al., 1998). In the United States, where 50% of health/fitness facility members are older than 35 years old, and the fastest-growing segments of users are those older than 55 and those aged 35 to 54, health/fitness facilities face increased risks of cardiac events (McInnis et al., 2001; McInnis, Hayakawa and Balady, 1997). As a result, health/fitness industry standard statements support the use of automated external defibrillators (AEDs) to increase the survival of SCA victims in health/fitness facilities (Balady et al., 2002). Moreover, numerous states in the United States mandate the use of AEDs in health/fitness facilities (National Conference of State Legislatures, 2009).

According to staggering findings of a recent research, 3.5 million middle aged (45-64 years old) Australians are currently either overweight or obese (Stewart et al., 2008) and therefore considered to be at increased risk of coronary heart disease and cardiovascular death (Murphy et al., 2006). In response, the National Preventative Health Taskforce has recommended provision of tax incentives or rebates for gym memberships as a preventative strategy in the fight against obesity (MHA, 2009). However, the Australian health/fitness industry has recently been criticized in the media for standards failures and infliction of physical harm by negligent trainers who have adopted 'no pain - no gain' training regimes (*Insight*, 2010). Epidemiological studies show that vigorous exercise can trigger heart attack and SCD, especially in habitually sedentary people with known or unknown coronary artery disease (Corrado et al., 2006b; Paterson, 1996; Balady et al., 1998; Albert et al., 2000). Assuming that some or any of the obese and overweight people in Australia join health/fitness facilities and start exercising, they will join over 8.5 million Australians who already attend physical activities (Fitness Australia, 2009). However, as stressed by Norton and Norton (2008) there are no laws or regulations in Australia requiring the installation and use of AEDs in health/fitness facilities, and only a few health/fitness facilities reportedly have installed AEDs (SJAA, 2010).

Data gathered from health/fitness facility managers displayed major constraints related to implementation of AEDs that involved lack of knowledge about protection from liability, required certification and training, use and operation of

AEDs, and concerns regarding fear of litigation (Connaughton, Spengler and Zhang, 2007). This was in line with the findings of an earlier study that assessed the familiarity of the general public with AEDs and their willingness to use them (Lubin, Chung and Williams, 2004). The most common concerns reported by the participants were fear of using the machine incorrectly and fear of legal liability. However, when the immunity granted by the Good Samaritan Laws was introduced, most changed their perceptions about AEDs in a positive way (Lubin, Chung and Williams, 2004). From this standpoint, the following Subsections will describe what an AED is and why it is important for saving human life, explain the industry standards on the use of AEDs in the health/fitness industry, provide some examples of case law in the United States and consider Good Samaritan legislation in the United States and Australia that can help understand why and how AEDs can be used in risk management of health and fitness facilities in Australia.

6.4.1. What is an AED?

An AED is a small, portable medical device designed to be used by a first responder to save the life of a SCA victim (American Heart Association, 2010c). SCA is the sudden unexpected loss of heart function in a person who may or may not have underlying heart conditions (AHA, 2010a). Often, SCA and heart attack are used interchangeably by the public; however, they are not the same and need different treatments. SCA is caused when the heart`s electrical system malfunction, whereas a heart attack occurs when a blockage slows or stops blood flow to some part of the heart muscle, not necessarily resulting in SCA or SCD (AHA, 2010a; b).

Some of the most common types of SCA are when the victim has an abnormal heart rhythm described as ventricular fibrillation (VF) and ventricular tachycardia (VT) that causes the pulse and breathing to stop due to the chaotic electrical energy in the heart. In this case, an AED can automatically check the heart rhythm of a SCA victim by electrode pads being placed on the chest. After checking for the heart rhythm an AED prompts the user to the steps required to initiate the shock and apply

cardiopulmonary resuscitation (CPR) if necessary (AHA, 2010c). If used according to its commands, there is no chance of accidentally hurting a victim.

The American Heart Association (AHA) has developed four vital steps that can create a *chain of survival* for SCA victims. As illustrated in Figure 6, the chain of survival includes: (a) early recognition of the emergency event and activation of the emergency medical services (EMS) system, (b) early administration of CPR, (c) early defibrillation, and (d) early advanced life support and follow-up care where professional EMS personnel provide advanced life support, including airway and breathing support, or medications (Nolan, Soar and Eikeland, 2006). In this sequence early defibrillation has been called the critical link in the chain of survival because the time from collapse to defibrillation often is the key indicator of survival from SCA (Nolan, Soar and Eikeland, 2006; Alem et al., 2003).

Figure 7. Chain of survival in cardiovascular events (Adapted from Nolan et al., 2006)

Reports suggest that the survival rate for victims of SCA is as high as 90% when defibrillation is achieved within the first minute of collapse with survival rates declining 7-10% with every minute that defibrillation is delayed. A SCA victim without defibrillation beyond 12 minutes has only a 2-5% chance of survival (Balady et al., 1998). Research suggests that the implementation of public access defibrillation

(PAD) and first-responder AED programs can improve survival of out-of-hospital SCA victims who receive bystander CPR and early defibrillation (Swor et al., 1995). These programs require an organized and practiced response with rescuers trained and equipped to recognize emergencies, activate the EMS system, provide CPR, and use the AED. Hallstrom and Ornato (2004) assessed the success of a structured and monitored emergency-response system involving lay volunteers trained in CPR alone or in CPR and the use of AEDs, in randomly assigned community units including fitness centres, golf courses, office complexes, shopping malls and hotels. The study showed that enhancing a well-developed, monitored, layperson-enacted CPR response plan by adding AEDs and AED training could increase the number of survivors of out-of-hospital SCA. This was in line with previous research that investigated lay rescuer AED programs at health/fitness facilities (McInnis et al., 2003) in airports (Caffrey et al., 2002) on airplanes (O'Rourke, Donaldson and Geddes, 1997; Page, Hamdan and McKenas, 1998) and in first responder programs with police officers (White et al., 1996) that achieved survival rates as high as 49% to 75% from out-of hospital witnessed SCA with provision of immediate bystander CPR and defibrillation within 3 to 5 minutes of collapse.

6.4.2. Fitness Industry Standards in Use of AEDs

In the United States the American Heart Association (AHA) and the American College of Sports Medicine (ACSM) adopted a formal position regarding use of AEDs in health/fitness facilities in 2002. Their joint position statement, "Automated External Defibrillators in Health/Fitness Facilities", was a supplement to their 1998 statement entitled "AHA/ACSM Recommendations for Cardiovascular Screening, Staffing and Emergency Policies at Health/Fitness Facilities". The AHA/ACSM guidelines for fitness facilities encourage effective placement and use of AEDs, as permitted by law, to achieve the goal of minimising time between recognition of a SCA and successful defibrillation. Most of the emphasis was given to clubs with more than 2,500 members; those that offered special programs to clinical populations; and

those in which the time from recognition of SCA until the first shock was delivered by EMS was anticipated to be more than 5 minutes (Balady et al., 2002).

In November 2005, the International Liaison Committee on Cardiac Resuscitation and the American Heart Association (ILCOR/AHA) published new guidelines for CPR and emergency cardiac care. The statements about defibrillation again stressed the use of AEDs by trained lay and professional responders to increase survival rates in patients with SCA. Emphasis was placed on inclusion of equipment maintenance in the emergency response plans, training of likely responders, coordination with local EMS systems, and program monitoring (International Liaison Committee on Cardiac Resuscitation and the American Heart Association, 2005).

The ACSM published the third edition of the Health/Fitness Facility Standards and Guidelines in 2007. Chapter 4 on "The Risk Management and Emergency Policies" presented standards and guidelines for health/fitness facilities in order to provide a reasonably safe physical environment for its employees, members and users (Tharrett, McInnis and Peterson, 2007, pp.17-23). In support of the aforementioned guidelines and the current research into CPR and the use of AEDs in the health/fitness industry, the third standard of this particular chapter state that health/fitness facilities must have at least one AED through a PAD program as part of their written emergency- response plan (Tharrett, McInnis and Peterson, 2007, p.19).

Other organizations that have set standards about the use of AEDs in health/fitness facilities are the NSCA, IHRSA, International Sports Sciences Association (ISAA), Aerobic and Fitness Association of America (AFAA), Medical Fitness Association (MFA) and Young Men`s Christian Association (YMCA). While, the IHRSA encourages health club operators to consider the advantages of installing AEDs in their facilities (IHRSA, 2010), the MFA's standards require that all medical fitness centres have at least one easily accessible AED for use (MFA, 2006). It also encourages any multiple-story buildings or large facilities of more than 30,000 square feet (2787m^2) to consider having additional AEDs. In line with the recommendations of the AHA, it is suggested that fitness facilities place AEDs at spots where it will not take more than 3 minutes of walking distance to reach a SCA victim. Additionally, all

staff should have current CPR/AED training. Similarly, the YMCA's medical advisory committee endorses the AHA's position on the use of AEDs and strongly recommends that all YMCAs in the United States have these devices available in their facilities and programs (McInnis and Herbert, 2006).

These standard developments in the use of AEDs in the health/fitness industry have been reflected in the credentials required for certified health/fitness professionals. For example, all Certified Strength and Conditioning Specialist (CSCS) and National Strength and Conditioning Association- Personal Trainer (NSCA-CPT) candidates are required to have a CPR/AED certification in order to qualify to take the examinations (National Strength and Conditioning Association, 2010). Similarly, the ACSM and ISSA also require candidates who enrol in a certification course to have a CPR\AED certification in order to qualify to take certification examinations (International Sports Sciences Association, 2010; American College of Sports Medicine, 2010).

In Australia, no standards have been set in the health/fitness industry as to the use of AEDs. However, under Occupational Health and Safety legislation, health/fitness facilities must adhere to relevant codes of practice to ensure that people are not exposed to risk to their health and safety arising from the services provided. In this line, the Queensland Government Department of Justice and Attorney published the *First Aid Code of Practice 2004* for businesses or workers to satisfy their obligations under the *Workplace Health and Safety Act 1995* (Qld) in managing work-caused injury and illnesses. The *Code* includes checklists of contents of a first aid kit, qualifications of first-aid personnel, and guidelines about infection control, accident response plans, first-aid signs, record keeping, confidentiality of information, workplace consultation and risk management procedures. The *Code* further provides information in relation to workplace first-aid with links to relevant resources including guidelines and policies provided by the Australian Resuscitation Council (ARC). The'basic life support' guidelines of the ARC consist of the acronym D-R-A-B-C-D that stands for: 1) checking for **D**anger, 2) checking if the victim is **R**esponsive and calling 000 for emergency services and/or resuscitation team, 3) opening the

Airway of the victim and looking for signs of life, 4) giving 2 initial **B**reaths if not breathing normally, 5) giving 30 chest **C**ompressions followed by two breaths, 6) attaching an automated external **D**efibrillator (AED), and continuing CPR until qualified personnel arrive or signs of life return (Australian Resuscitation Council, 2004).

Despite the heightened use of AEDs in the 'basic life support' system of the ARC, it is not clear if a workplace that fails to use an AED in an emergency situation would be in breach of their obligations under the *Workplace Health and Safety Act 1995* (Qld). Neither is it clear what type of workplaces should install AEDs. According to the Queensland Emergency Medical System (QEMS) policy statement (Queensland Emergency Medical Services, 2003), the decision to have an AED available in a public place or workplace is the responsibility of the entity. However, QEMS supports deployment of AEDs in entities that have more than 50, 000 visitors per year, and which have high risk participants, such as adults over 50 years old. When an AED is installed, the facilities must integrate the AED program with community medical and EMS, have responders trained in CPR/first aid and AED, and have systems to document, review and collect data on each incident (QEMS, 2003).

In February 2004, a national government funded project called Project HeartStart Australia (PHSA) was launched and implemented by St John Ambulance Australia (SJAA) (St John Ambulance Australia, 2010). The project consisted of a PAD demonstration program accompanied by installation of AEDs into the selected public places. The rationale behind PHSA was to reduce the mortality rate of pre-hospital SCA, and implementing programs where members of the public gather such as at airports, railway stations, shopping centres, fitness centres, recreational clubs, convention centres, hotels and tourist attractions. The latest records of the project showed that out of 301 defibrillators installed in state and territories, eight AEDs were installed in public and private health/fitness facilities in Queensland (Qld) (n=2), Australian Capital Territory (ACT) (n=4), Northern Territory(NT) (n=1) and South Australia (SA) (n=1) (SJAA, 2010).

An evaluation report of the project was published in August 2008, four years after the project started (Australian Government Department of Health and Ageing, 2008). The report indicated that there had been 20 reported activations at host organisations since the commencement of the project. In seven cases, lives were directly saved as a result of AED intervention. However, patients could not be revived in some instances. Staff who suffered the trauma of experiencing a life being lost after use of the AED reported that they had at least been able to do everything within their power to assist (AGDHA, 2008, p.33).

In the mean time, Sport Medicine Australia (SMA) stated in a media release that they endorsed the recommendations of recent research (Norton and Norton, 2008) on use of AEDs in health/fitness facilities. In this light, SMA recommended health/fitness centres carefully evaluate their need to install AEDs, in order to increase the survival rates of SCAvictims (Sports Medicine Australia, 2008). The supportive statements of SMA and government funded projects (AGDHA, 2008) on the use of AEDs signalled a change in the required standard of care expected in the Australian health/fitness industry for reasonable member safety.

6.4.3. AED Legislation and Case Law

Since 1997, numerous states in the United States have passed legislation mandating that health/fitness facilities install AEDs on their premises. These include Arkansas (Ark.Code Ann. §20-13-1306), California (Cal. Health & Safety Code § 104113), Illinois (§210 Ill. Comp. Stat. 74/15), Indiana (Ind. Code Ann. § 24-4-15-5), Louisiana (La. Rev. Stat. Ann. §40:1236.13), Massachussets (Mass. Gen. Laws 93 § 78A), Michigan (Mich. Comp. Laws § 333.26312), New Jersey (N.J. Rev. Stat. § 2A:62A-31), New York (N.Y. Gen. Bus. Law § 627), Oregon (Ore. Rev. Stat. § 431.680) and Rhode Island (R.I. Gen. Laws § 5-50-12).

In most of the aforementioned states, having an AED is accompanied by a requirement for a written emergency plan and trained employee. However, there are some differences in the statutes as to the minimum facility membership numbers that trigger the mandatory installation of AEDs. For example, whereas the Louisiana

statute requires AEDs in gyms with as little as 50 or more members, the New York statute requires it only in facilities with 500 or more members. Additionally, in some states including Illinois, Michigan and New Jersey violation of the legislation is subject to civil penalties. For example, under the Michigan legislation (Mich. Comp. Laws §333. 26312) health/fitness facilities that are found in violation of the act are subject to fines ranging from US$250 to US$1,000. In Rhode Island, violation of the act requiring AEDs may result in suspension or revocation of the health club`s registration (R.I. Gen. Laws §5-50-12).

In light of the new legislation mandating installation of AEDs in the health/fitness industry, as well as the standards being set by industry bodies, whether or not fitness facilities have a legal duty to have an AED has been questioned on a state-by-state basis. Some jurisdictions, as demonstrated in *Brown v Atlas-Kona Kai, Inc.* (2009), *L.A. Fitness International v Julianna Tringali Mayer* (2008) or *DeLibero v Q Clubs, Inc*. (2007) have held that promptly calling for medical assistance was enough to satisfy the legal duty of care. In other words, it has been held that deployment of AEDs at the health/fitness facilities cannot be required as the legal standard of care. However, these decisions only apply in their own jurisdictions, based on statutory or case law at the time of the events. The cases cited below illustrate how failing to deploy an AED can result in large verdicts or out of court settlements against health/fitness facilities.

In *Fruh v Wellbridge Club Management Inc.*(2002), Fruh was exercising at the Wellbridge Health and Fitnessclub (hereafter "Wellbridge") in Boston when he collapsed from a SCA. The employees of Wellbridge called EMS and began CPR. After about nine minutes an AED was deployed on Fruh by emergency personnel who arrived in response to the call. Eventually, Fruh's heart was restored to a normal rhythm. However, because of the time that had passed without adequate oxygen being provided by his heart, Fruh was left mentally and physically disabled.

Wellbridge had identified its goal to be a scientifically-based health/fitness centre for mature adults that included developing programs for diabetes, heart disease, hypertension and general health and well being. What is more, Wellbridge contracted

with the members that it would conform to the standards of quality of the IHRSA including all relevant laws, regulations and published standards. In this regard, the plaintiff argued that Wellbridge had warranted that they were able to respond in a timely manner to any reasonably foreseeable emergency that threatened the health and safety of club users. Toward this end, the club had an appropriate emergency plan that involved execution by qualified personnel in a timely manner. Therefore, the plaintiff argued that Wellbridge had a duty to its customers to take reasonable precautions to insure their safety against all reasonably foreseeable risks of injury, including SCA.

Wellbridge also recognized the foreseeability of SCAs by providing its employees with CPR training which emphasized the critical nature of early defibrillation and the limited value of CPR. Despite this knowledge, Wellbridge did not have an AED on its premises. In this regard, the plaintiff argued that the lack of an AED caused Fruh to suffer more severe injuries than would have been experienced if prompt defibrillation had occurred. Despite the fact that Massachusetts laws did not require AEDs in the health/fitness facilities at the time of the event, the court stated that because of this failure, Wellbridge breached its duty to Fruh. As a result, Wellbridge agreed to pay US$1.8 million in an out of court settlement (Cotten, 2008).

In *Fowler v Bally Total Fitness* (2006) Bally Total Fitness Club (hereafter "Bally") was found liable for the sixth time for failing to install and use AEDs in their facilities in Gaithersburg, Montgomery County, Maryland. In 2005, 46 year old Fowler collapsed from SCA while exercising. The staff of the fitness facility did not begin CPR immediately, and the fitness facility did not have an AED that could have been used on Fowler. At that time a Montgomery County ordinance in effect required the installation of AEDs in health clubs, but exempted the town of Gaithersburg. However, Bally had agreed and warranted to its members that it would support and abide by guidelines and recommendations of the ACSM. This also included the AHA/ACSM recommendation about the installation and use of AEDs in health/fitness facilities.

Bally filed a motion to dismiss the case arguing that it had no legal duty to have an AED at its Gaithersburg club and that the membership agreement signed by

Fowler in 2003 had a waiver and release which immunized Bally from liability for negligence in any event. In this respect, the court noted that the plaintiff was not alleging a failure to respond to the deceased's medical emergency, as Bally had responded by calling 911. However, the plaintiff was alleging that Bally was negligent in its response by not having an AED on its premises. The court concluded that the waiver and release form did not cover the plaintiff's claims of gross negligence.

The Cook County Circuit Court judge denied Bally's motion to dismiss. Under a traditional duty analysis, the Maryland court considered: (1) the foreseeability of harm to the plaintiff; (2) the degree of certainty that the plaintiff suffered the injury; (3) the closeness of the connection between the defendant's conduct and the injury suffered; (4) the moral blame attached to the defendant`s conduct; (5) the policy of preventing future harm; (6) the extent of the burden to the defendant and consequences to the community of imposing a duty to exercise care with resulting liability for breach; (7) and the availability, cost and prevalence of insurance for the risk involved. The court stated that heart attacks were a reasonably foreseeable type of event likely to occur in instances where strenuous physical activity and exercise is encouraged (**note:** *the court seems to have used heart attack and SCA interchangeably, however the reader should note that these are two different conditions. Please see information in Subsection 6.4.1 of this Chapter*). Furthermore, since the foreseeability test was intended to reflect current societal standards, the court suggested that such standards were trending towards mandatory requirement of AEDs at the time of the deceased's death.

While assessing the extent of the burden to Bally to acquire AEDs, the court considered the plaintiff`s argument. It was estimated that Bally's cost to acquire AEDs for all its facilities nationwide and to train its employees on their use would be approximately US$2 million, while Bally spent over US$15 million on advertising alone in a typical three-month fiscal quarter. Therefore, the consequences of imposing such a duty were deemed relatively insignificant. Moreover, the court noted that there

was a moral blame attached to Bally's conduct as Bally had never addressed why it had continuously opposed the use of AEDs in their health clubs.

As a result, the court found Bally liable for gross negligence for several reasons. First, the court stated that heart attacks were a reasonably foreseeable type of injury that is likely to occur in physical activity settings. Secondly, fitness industry standards had evolved towards the mandatory use of AEDs at facilities. Moreover, it was noted that instead of pursuing a relatively cheap and easy solution to the problem through installation of AEDs at its health facilities, Bally had consciously taken this known risk for granted. As a result, Bally was held liable for damages.

Considered within the circumstances of the two aforementioned cases, the verdict of the courts shows how the installation of AEDs may be required as the standard of care expected from health/fitness facilities. Eickhoff-Shemek, Herbert and Connaughton (2009) suggest that it is important that health/fitness facility professionals be made aware that "other clubs do not have AEDs" may not be a viable defence. Instead, facilities must adhere to the standard of care that can be required of the reasonable health/fitness facility relevant to which will be the size and membership number of the facility, including the preparedness of high risk membership in order to avoid legal liability. Increasingly, it looks likely that, in the United States at least, reasonable health/fitness facilities may well be expected to install AEDs. Of course, such *general* conclusions are just that, that is only a general guide, and health/fitness professionals are first advised to consider local laws and the regulations when deciding to purchase and install AEDs in their facilities.

6.4.4. Good Samaritan Laws

Although liability may arise due to a *failure* to use an AED, studies show that health/fitness professionals are concerned about legal liability resulting from *the actual* use of AEDs (Lubin, Chung and Williams, 2004; AGDHA, 2008; Connaughton, Spengler and Zhang, 2007). Therefore, "the combination of litigation fear and low levels of awareness results in inertia and resistance to the take up of AEDs" (AGDHA, 2008, p.35). From this perspective, it is crucial that health/fitness

managers are made aware of the Good Samaritan laws that exempt a person, who voluntarily helps a victim in distress, but negligently causes injury while rendering first aid, from liability.

6.4.4.1. Good Samaritan Laws in the United States

All 50 states in the United States have passed Good Samaritan legislation, and the federal government has passed the *Cardiac Arrest Survival Act* and the *Rural Access to Emergency Devices Act* as components of the federal *Public Health Improvement Act* of 2000 (Balady et al., 2002). The *Cardiac Arrest Survival Act* (42 U.S.C.§238q.(a) has been designed to provide nationwide Good Samaritan legal liability immunity for any harm resulting from the use or attempted use of an AED. This immunity applies regardless of training, and protects the user from liability for ordinary negligence. The statute does not apply to (1) acts that constitute gross negligence, and reckless conduct; (2) licensed health professionals acting within the scope of their duty; (3) a hospital or clinic for healthcare; or (4) an acquirer who leases the AED to a healthcare entity.

It further provides that anyone who acquires an AED is also immune from liability so long as the acquirer (1) notified local emergency response personnel of its placement within a reasonable period of time; (2) properly maintained and tested the device and (3) trained its employees and agents in the proper use of the AED. The training requirement does not apply if the AED user was not an employee, agent or one who would have been expected to use the device or if the employee was recently employed and insufficient time for training had elapsed. The statute supersedes the law of a state only to the extent the state has no statute or regulations that provide persons in such class with immunity.

According to the majority of the states that have Good Samaritan type legislation, AEDs must be used in good faith during an emergency situation. Many states require the AED user to have received training and/or be authorized or certified in the use of an AED through a course conducted in accordance with the standards of the AHA, the American Red Cross (ARC) or other approved course (Connaughton

and Spengler, 2001). In contrast, Ohio (Ohio Rev. Code Ann.§2305-235) and Georgia (Ga.Code Ann.§31-11-53.1) extends immunity to the untrained user who acts gratuitously and in good faith. Additionally, laws in Florida (Fla.Stat.Ann.§768.13) and Missouri (Mo. Rev. Stat. §190.092) differ in the sense that they require an AED to be used without objection from the victim. In this regard, health/fitness facilities may be advised to get authorization of medical care including first aid, CPR and AED included in the membership waiver and release forms (Cotten and Cotten, 2010).

6.4.4.2. Good Samaritan Laws in Australia

In Australia, as highlighted by Eburn (2003, p.7), there has always been widespread anxiety by health-care professionals in particular, about the possibility of legal liability for negligence resulting from the giving of assistance in emergency situations (Cowley-Smith, 1997; Gibson, 2002, p.6189; Ipp et al., 2002). However, the Ipp Committee reported that:

> ...the Panel is not aware, from its researches or from submissions received by it, of an Australian case in which a good Samaritan (a person who gives assistance in emergency) has been sued by a person claiming that the actions of the good Samaritan were negligent. Nor are we aware of any insurance-related difficulties in this area. (Ipp et al., 2002, p.107)

Therefore, the Ipp Committee did not recommend the introduction of Good Samaritan type legislation in Australian law noting that:

> ...because the emergency nature of the circumstances, and the skills of the good Samaritan, are currently taken into account in determining the issue of negligence, it is unnecessary and, indeed, undesirable to go further and to exempt good Samaritans entirely from the possibility of being sued for negligence. A complete exemption from liability for rendering assistance in an emergency would tip the scales of personal responsibility too heavily in favour of interveners and against the interests of requiring assistance (Ipp et al., 2002, p.108).

Notwithstanding the aforementioned finding, currently most jurisdictions in Australia have Good Samaritan type legislation (Eburn, 2003). However, there are some differences as to the extent and circumstances in which the immunity is granted. For instance, according to *Civil Law (Wrongs) Act 2002* (ACT) s 5(a) a Good Samaritan does not incur personal civil liability for an act done or omission made

honestly and without recklessness in assisting, or giving advice about the assistance to be given, to a person who is apparently injured or at risk of being injured; or in need of emergency medical assistance, and (b) a medically qualified person (i.e. doctor, member of ambulance services) who, acting without expectation of payment or other consideration, gives advice by telephone or another form of telecommunication about the treatment of a person who is apparently in need of emergency medical assistance. Similarly, the *Civil Liability Act 2002* (NSW) s 57, *Personal Injuries (Liabilities and Damages) Act 2008* (NT) s 8, *Civil Liability Act 1936* (SA) s 74, *Civil Liability Act 2002* (WA) s 5AD and *Civil Liability Act 2002* (TAS) s 35B state that a Good Samaritan does not incur personal civil liability for a personal injury caused by an act done in good faith and without recklessness while giving emergency assistance to a person. In Victoria, under *Wrongs Act 1958* s 31B it suffices for a Good Samaritan to have acted in good faith alone.

In most jurisdictions, except Victoria, Good Samaritan protection is not available if the Good Samaritan's capacity to exercise due care and skill was significantly impaired by alcohol or another recreational drug at the relevant time. According to *Civil Liability Act 2002* (NSW) the protection from personal liability also does not apply if it is the Good Samaritan's intentional or negligent act or omission that caused the injury or risk of injury. In this context, adherence to risk management practices including pre-activity screening procedures, would play a crucial role to make sure that high risk individuals for SCA are identified and proper exercise programs are developed in light of their medical practitioners' advice.

In Queensland, the Good Samaritan legislation is limited to doctors and nurses under the *Law Reform (Miscellaneous Provisions) Act 1995*, which was originally enacted under the *Voluntary Aid in Emergency Act 1973*. For the protection from liability to apply s 16 states that:

> [l]iability at law shall not attach to a medical practitioner, nurse or other person prescribed under a regulation in respect of an act done or omitted in the course of rendering medical care, aid or assistance to an injured person in circumstances of emergency...if—
> (c) the act is done or omitted in good faith and without gross negligence; and
> (d) the services are performed without fee or reward or expectation of fee or reward.

All in all, in states with Good Samaritan legislation it can be suggested that a health/fitness professional, who negligently causes injury while using an AED in an emergency situation, would be exempt from liability if they acted in good faith and without recklessness, and, according to Good Samaritan legislation in NSW, his/her intentional or negligent act or omission did not cause the injury or risk of injury. Besides, where there is no Good Samaritan legislation to protect lay rescuers from liability that may arise as a result of rendering first aid or use of AEDs, it is considered almost impossible for a victim to successfully sue an individual who has rendered emergency first aid with good practice and honest intentions, unless the rescuer was grossly negligent (Colquhoun and Martineau, 2000). Therefore, in health/fitness facilities, where staff members have been recruited to use an AED, managers must ensure that their staff have received adequate training from accredited education providers in order to show good practice in case of an emergency situation. Furthermore, research suggests that it is crucial that the staff receive re-training and refresher courses obtained from accredited education providers in order to ensure the retention and knowledge in skills required to use AEDs (Madden, 2006; Mahony et al., 2008). As a final remark, it is also advised that the AEDs should be well maintained in accordance with the manufacturers' recommendations, local laws and regulations.

6.5. Construction and Design

In Australia, health/fitness facility operators must ensure that the design and construction of their facility complies with the current Building Codes of Australia (BCA). The BCA applies to all new buildings and existing buildings going under renovations. The BCA is produced and maintained by the Australian Building Codes Board (ABCB) on behalf of the Australian Government and State and Territory Governments and has been given the status of building regulations by all States and Territories (Australian Building Codes Board, 2010). As a health/fitness facility risk management practice, compliance with the BCA would ensure that a facility has been

constructed with due care to maintain the minimum necessary standards of relevant health and safety (including structural safety and safety from fire) objectives in order to prevent facility related injuries.

In the case of *Marshbaum v Loose Fit Pty Ltd and Anor* (2010) in the New South Wales Supreme Court, the plaintiff alleged that as she was descending a flight of stairs in the fitness centre operated by the defendant, Loose Fit Pty Ltd, (hereafter Loose Fit), she fell and suffered injuries to her left shoulder as a result of negligence and breach of duty of care on the part of Loose Fit on 10 November 2006. The relevant particulars of negligence were that there was no handrail installed on the staircase, the steps were constructed of pale coloured polished timber without visually contrasting nosings, the steps were constructed with differing riser heights and the steps were constructed with a varying tread depth as against the requirements of the BCA.

In determining whether there was a breach of duty of care and negligence, the court considered the plaintiff`s claim under s 5B of the *Civil Liability Act* 2002 (NSW). Section 5B states that:

> (1) A person is not negligent in failing to take precautions against a risk of harm unless:
> (a) the risk was foreseeable (that is, it is a risk of which the person knew or ought to have known), and
> (b) the risk was not insignificant, and
> (c) in the circumstances, a reasonable person in the person's position would have taken those precautions.
> (2) In determining whether a reasonable person would have taken precautions against a risk of harm, the court is to consider the following (amongst other relevant things):
> (a) the probability that the harm would occur if care were not taken,
> (b) the likely seriousness of the harm,
> (c) the burden of taking precautions to avoid the risk of harm,
> (d) the social utility of the activity that creates the risk of harm.

In this regard, the Supreme Court Judge Hoeben suggested that it was not reasonable for Loose Fit to have known about the discrepancy in the risers and going of the stairs unless he was an expert who carried out measurements (Marshbaum v Loose Fit Pty Ltd and Anor, 2010, para 76). However, the need for a handrail on the

upper flight of stairs was considered to be an obvious situation that Loose Fit should have been aware of. Therefore, Judge Hoeben contended that:

> [e]ven without such expert advice, a reasonable person operating a fitness centre when considering the differing physiques, ages and stature of persons likely to be using the centre, should have concluded that there was a risk of injury to such persons if a handrail were not provided. It was obvious that a person of small stature would not be able to grip the top of the stub wall as a means of support. (Marshbaum v Loose Fit Pty Ltd and Anor, 2010, para 78)

Furthermore, the court suggested that even if there was no history of any previous falls on the stairs, the risk of a fall was very likely to occur in the absence of a handrail and if such a fall did occur, the consequences were likely to be serious and perhaps even life threatening. Besides, the burden of taking precautions to avoid the risk was also considered to be quite small in terms of both inconvenience and expense. As a result, Loose Fit was found liable both in negligence and for breach of contract for failing to exercise reasonable care for the safety of the plaintiff when she came onto its premises.

Another major issue for health/fitness facility operators to consider in the design and construction of facilities is the allocation of adequate space in the designated exercise areas in order to avoid overcrowding and the associated risk of injuries. For example, if there is not enough space in a weight training area, a person working on an exercise bench with a bar or dumbbells can easily be hit by another person passing by or training on a nearby bench. Such accidents can result in serious injuries to the patrons including, but not limited to, dislocation of shoulder joints or sprains and strains. In the case of *Mannone v Holiday Health Clubs and Fitness Centres, Inc* (1993) the plaintiff was injured when his hand was struck by a free weight, causing a subtotal amputation of his left ring fingertip. Some of the negligence claims brought against the facility were failure to (1) adequately supervise the free-weight room, (2) instruct members on proper use of the free weights, (3) train, qualify, and supervise personnel adequately, and (4) regulate membership numbers to space accommodations.

Under the principles of tort law, health/fitness facilities have a duty to protect their patrons from reasonably foreseeable risks of harm, such that the facility may be aware of a risk but that risk may not be apparent to the exercise participants. An injury caused by overcrowding of an exercise area, considered on the balance of probabilities, can result in legal liability of a health/fitness facility due to the failure to provide a reasonably safe exercise area. Therefore,

> [h]ealth/fitness facilities should make every effort to control for overcrowding in their exercise areas by providing adequate spacing for stretching, walkways (e.g., between machines and windows/walls), and between equipment, as well as regulate the number of members given the size of the facility. (Eickhoff- Shemek et al., 2009, p. 221)

As yet, there is no industry standard or code of practice established in Australia that deals with space requirements in health/fitness facilities to exercise safely. Only the *Fitness Industry Code of Practice 2009* of the Australian Capital Territory (ACT) states that health/fitness facilities have to restrict the number of people in any group exercise classes to a maximum of 1 person for every 3 square meters of effective exercise area. Furthermore, the *Code* states that health/fitness facilities have to ensure that resistance training areas contain adequate safe working space and that user numbers do not hinder safe and effective use of the training equipment. On the other hand, the ACSM`s standards for health/fitness facility design and construction states that, to the extent required by law, health/fitness facilities must adhere to the Americans with Disabilities Act (ADA) by ensuring that each piece of equipment have an adjacent clear floor space of at least 76 cm by 122 cm. According to the ACSM`s health/fitness facility design and construction guidelines that were based on IHRSA-derived data it is recommended that;

> [m]ultipurpose-type facilities should provide approximately 27sq ft (7.2 sq m) per member. A space allocation that depends on the target audience, the facility`s program offerings, and the facility`s business model could range from as low as 10 sq ft (3 sq m) per member to as high as 50 sq ft (15 sq m) per member. (Tharrett, McInnis and Peterson, 2007, p.35)

Besides, the ACSM`s guidelines indicate that "[g]roup exercise rooms or studios should provide between 40 and 60 sq ft (12 and 18 sq m) per expected member or user in the space at any given time" that is four to six times more than the effective space requirement for group exercise classes outlined in the *Fitness Industry Code of Practice* of the ACT. The ACSM`s guidelines further recommend that the "[f]itness floor should provide between 25 and 50 sq ft (7.6 and 15.2 sq m) per piece of equipment on the floor and space for stretching that allows 40 to 60 sq ft (12 to 18 sq m) of space per member or user."(Tharrett, McInnis and Peterson, 2007, p.35)

According to the Canadian Fitness Safety Standards "[t]he number of participants in an exercise class is based on the square footage that allows each participant unrestricted and safe movement in various types of exercise" and the "[p]articipant numbers may also be defined by building code restrictions and/or fire code regulations" (OAES, 2004). The Canadian Fitness Safety Standards also recommends that all equipment such as cardio, resistance machines and free weights should be placed in a logical sequence to maximize efficient traffic flow and allow safe and effective use of the equipment. However, neither the ACSM`s health/fitness facility standards/guidelines nor the Canadian Fitness Safety Standards reflect the needs and requirements of the Australian health/fitness industry. In this light, there is an emerging need for development of space allocation requirements for effective and safe exercising health/fitness facilities in Australia.

Nevertheless, health/fitness facility managers in Australia should develop effective strategies and methods to monitor and control their daily member population as a preventive risk management practice against injuries resulting from insufficient space in the designated exercise areas. For example, consultation with employees and members can assist health/fitness facility managers to identify overcrowded areas and help to develop and instruct staff on reasonable steps/precautions for the participants to follow when the facility becomes overcrowded (SafeWork SA, 2010; Eickhoff-Shemek, 2009, p.221).

6.6. Occupational Health and Safety

In Australia, health/fitness facility operators are responsible under the occupational health and safety (OH&S) legislation and regulations to ensure that the environment, their employees and other people are not exposed to risks to their health and safety arising out of the services that they provide. Currently, there are ten OH&S statutes (six state Acts, two territory Acts, a Commonwealth Act) covering Commonwealth employees and employees of certain licensed corporations, and a Commonwealth Act. Each of the Australian OH&S statutes includes broad, overarching general duties that are supported by more detailed provisions in regulations, and codes of practice that contain guidance material. Although these laws draw on a similar risk management approach based on the Standard on Risk Management AS/NZS 4360:2004 for regulating workplaces, there are differences as to the application and detail of the laws.

There have been arguments that the inconsistencies in the OH&S laws cause confusion for businesses and inequitable safety standards across jurisdictions and industry sectors. In response to industry calls for greater national consistency, the Commonwealth, states and territories have agreed to implement nationally harmonised workplace health and safety legislation to commence on 1 January 2012. Safe Work Australia, an independent statutory agency responsible to improve occupational health and safety and workers' compensation arrangements across Australia**,** has prepared the model *Work Health and Safety Regulations* and a series of draft model codes of practice available for public consultation and review until 4 April 2011 (National Research Centre for Occupational Health and Safety Regulation, 2010). The draft model *Work Health and Safety Regulations* aim to develop one set of general OH&S law to replace the existing statutes.

The OH&S statutes and regulations are mandatory and failure to comply with the requirements can be an offence for prosecution, whereas codes can be used as evidence in a prosecution for an alleged contravention of an applicable regulation or general duty provision of the OH&S statutes. All of the OH&S statutes provide that the principal penalty for OH&S offences is a fine. The maximum fine in each

jurisdiction varies considerably with the highest in New South Wales and Victoria. In New South Wales, sanctions also include adverse publicity court orders, and a court order that requires the offender to participate in an OH&S related project.

Most OH&S regulations require employers to identify hazards and assess and control identified risks through process-based standards that rely on documentation requirements. According to the National Research Centre for OH&S regulation (2010), the Queensland Workplace Health and Safety Regulations probably is the best example of an Australian documentation system that requires principal contractors, demolishers, contractors and subcontractors to prepare and exchange copies of workplace health and safety work plans prior to commencing certain kinds of construction work. The regulation envisages that the work plan requirement operates as a risk assessment tool and as a mechanism to co-ordinate the OH&S measures taken by principal contractors, contractors and subcontractors.

Under the Queensland *Workplace Health and Safety Act 1995* there are four types of legislative instruments that assist to meet workplace health and safety obligations, regulations, ministerial notices, codes of practice and standards. If there is no regulation, ministerial notice or code of practice about a risk, a person must take reasonable precautions, and exercise proper diligence to manage exposure to risks in the best possible way. Codes of practice increasingly provide guidance on hazard identification, risk assessment processes and risk control. A code of practice does not have the effect of law, but it has to be followed unless there is an alternative course of action that achieves the same or better level of protection against a particular risk.

For example, in Queensland the *Risk Management Code of Practice 2007* clearly defines and explains the five step risk management process that obligation holders are required to perform under the *Workplace Health and Safety Act 1995* and the *Electrical Safety Act 2002* to make sure all hazards in the workplace are eliminated or minimised. Whilst there are many other codes of practice available in Queensland (i.e. *First Aid 2004, Horse Riding Schools, Trail Riding Establishments and Horse Hiring Establishments 2002, Recreational Diving, Recreational Technical Diving and Snorkelling 2010*) (The State of Queensland Department of Justice and

Attorney-General, 2010), and other state and territories, to assist employers and other persons having duties under the OH&S acts and OH&S regulations, there are not codes of practice available for all types of work that will be conducted in different work environments, such as fitness services delivered in health/fitness facilities. As such, the voluntary fitness industry codes of practice provide nil or limited guidance about the OH&S requirements. For example, while the Western Australia (WA) *Fitness Industry Code of Practice* merely states that a person bound by the Code should be familiar with the requirements contained in OH&S legislation, the *Fitness Industry Code of Practice* of New South Wales, and similarly the *Business Member Code of Practice* of Victoria in particular emphasize that:

> [a] [s]upplier must ensure that all wet areas of the Fitness Centre are cleaned frequently and regularly in order to maintain a high standard of cleanliness and comply with occupational health and safety legislation.

However, as demonstrated through Section 6 of this chapter, maintenance of wet areas is not the only risk that can impose a danger to the health and safety of the exercise participants and the employees of health/fitness facilities.

In a Victorian study it was highlighted that the current OH&S requirements provided little guidance and therefore there was a need for comprehensive, relevant and accessible industry specific safety benchmarks and standards to promote safety policies and practices (Finch et al., 2009a). This was in support of the argument that while the risk management approach of OH&S provides a general framework to ensure the risks to safety at work are 'as low as reasonably practicable' decision makers also need prescriptive rules to guide their decisions (Hopkins, 2010, p.4).

As mentioned in the beginning of this section, the OH&S legislation does not imply an obligation to do or refrain from doing anything specific, but rather can create offences relating to workplace dangers. Besides, injuries resulting from a failure to comply with the OH&S requirements can result in subsequent liability claims either in tort or breach of contract. The case of *Heil v Suncoast Fitness* (1998) in the Queensland Supreme Court of Appeal, not only raised the issue of negligence but also

the role of OH&S legislation where a person was injured while participating in a seemingly low risk outdoor recreational activity such as power walking. According to the evidence the plaintiff had been power walking as part of a group session lead by an instructor along a path frequently used by walkers, joggers, bike riders and roller-bladers, when a man riding a bicycle ran into him causing him to sustain serious injuries.

The plaintiff brought a legal action against the employer of the instructor, who was the leader of the power walker group of which the plaintiff was part of. First, the plaintiff argued that the instructor was negligent in failing to keep a proper look out to avoid the accident from happening. In this respect, the court highlighted the fact that the instructor did not have any greater skill, expertise or experience than the plaintiff when it came to assessing a situation of possible danger whilst walking through the park and deciding what step should be taken to minimise the risk. Furthermore, the court suggested that whether the appellant walked on the grass or the cement path, or whether he walked two feet or six feet behind the person in front, he was in just as a good position as the instructor to appreciate any possible risks associated with the power walking in question and therefore was equally capable of taking necessary steps to minimise those risks.

Secondly, the plaintiff claimed that the instructor breached a statutory duty based on the provisions of s10 of the *Workplace Health and Safety Act 1989*, a statute which was repealed a few months after the appellant suffered his injury by virtue of s 206 of the *Workplace Health and Safety Act1995*. Section 10 of the *Workplace Health and Safety Act 1989* stated that:

> 1) An employer who fails to conduct his or her undertaking in such a manner as to ensure that his or her own health and safety and the health and safety of persons not in the employer's employment and members of the public who may be affected are not exposed to risks arising from the conduct of the employer's undertaking, except where it is not practicable for the employer to do so, commits an offence against this Act.
> 2) A self-employed person who fails to ensure that persons not in his or her employment and members of the public are not exposed to risks to their health or safety because of the work in which the self-employed person or any of his or her employees is engaged, except where it is not practicable for the self-employed person so to do, commits an offence against this Act.

The plaintiff argued that the instructor was liable for failing to conduct her job in such a manner as to ensure that the plaintiff was not "exposed to risks arising from the conduct of the employer's undertaking". In this regard, Judge Williams suggested that even though the provisions of the Act created offences relating to workplace dangers, it did not imply an obligation to do or refrain from doing anything specific. The provisions of the Act rather required the potential offenders to act safely for the protection of anyone, whether employee or not, whose safety may be put at risk as a result of their "undertaking". In this light, Judge Williams reached the conclusion that s10 of the Act gave no private right of action for its breach. Furthermore, the court suggested that s 10 of the Act could not have applied to the breach of duty under contention. Elaborating on this issue Judge William concluded that:

> [he]re the undertaking involved organising people to walk through a public park. People walk through public parks every day - it is an extremely common occurrence in our society. There is always a risk that a user of a public park might act negligently so that some injury is caused to another of the users of the park. I have difficulty in comprehending how an employer in the position of the respondent here could be said to be exposing those participating in one of its organised walks to a risk arising from the "conduct of the undertaking" where the only exposure was to the ordinary risks to which every user of a park is exposed, and with respect to which every user is capable of taking avoidance measures.*(Heil v Suncoast Fitness,* 1998, para 21)

All in all, the plaintiff`s action for both negligence and breach of statutory duty under the *Workplace Health and Safety Act 1989* failed. Even though this case demonstrates that breach of OH&S requirements does not give a right of action for injuries caused to employees or clients resulting from a failure to comply with OH&S requirements can result in liability claims in negligence. For example, as demonstrated earlier in Subsection 6.2 of this Chapter, in *Gale v New South Wales* (2005) Gale was employed as a part time supervisor in the gymnasium. A weight machine got stuck and, in attempting to free it, weights in the machine crushed her foot. Gale sued her employer for negligence alleging that the machine was not well maintained and that the defendant should have foreseen that if the machine broke down she would attempt to fix it. The Court of Appeal agreed that the risk of such an

accident of the general type occurring was foreseeable and found for the appellant granting her retrial.

6.7. Use of Exclusion Clauses and Waivers

Health/fitness facilities typically incorporate exclusion clauses or waivers (as usually referred to in the United States) into membership contracts to transfer costs associated with the risk of injury claims to their exercise participants, who agree not to hold the facility and their employees responsible for injuries that may occur during the activity to be carried out. In this Section 'exclusion clauses' and 'waivers' are used interchangeably.

An exclusion clause is defined as a contractual term that operates to exclude, restrict, or qualify the rights of the parties in order to provide a defence to claims of breach of contract (Encyclopaedic Australian Legal Dictionary, 2011). There are three main types of exclusion clauses: (1) clause excluding the rights a party would otherwise possess; (2) clauses restricting the rights of one party without necessarily excluding the liability of the other party; and (3) clauses operating to qualify rights or remedies by subjecting them to specified procedures.

A waiver is where one party, by words or conduct, relinquishes a right or interest conferred by a contract (Encyclopaedic Australian Legal Dictionary, 2011). Sometimes waivers are also referred to as 'releases'. However, a 'waiver' generally refers to a document signed *before* any damage or injury occurs, while a 'release' is often used after an injury has occurred (Dickerson, 2010). While "[t]he law will not determine the effectiveness of such mechanisms by a consideration of what a document is called, but rather by what the document purports to do and whether, in all the circumstances it has done" (Healey, 1995, p.195), as demonstrated later in this section, sometimes the courts may pay particular attention to the semantic difference that the use of the words 'waiver' and 'release' may create in determining the effectiveness of such documents (*Belna Pty Ltd v Irwin*, 2009, para. 39).

Exclusion clauses act as contractual defences to negligence claims. Such documents may also include risk warnings about the physical activity to be

undertaken by the signee and used to strengthen or as proof of voluntary assumption of risk defence if the waiver is not enforceable at the court. There are a combination of factors that affect the treatment of such documents by the courts including the wording quality of the document, the circumstances of the case and the judge (SCORS, 2002, p.15). According to Sharp, Moorman and Claussen (2010, p.518) "[t]his area of the law becomes complex because courts are involved in a difficult balancing act between two pillars of the law- tort law and contract law". As the authors denote under the principles of tort law plaintiffs have the right to seek damages against defendants who have injured them in certain situations in which the courts give a remedy, however, contract law gives adults the right to make a binding agreement to give up such rights (pp. 518-519).

In Australia, recreational services, including health and fitness facilities, are subject to the provisions of the *Australian Consumer Law* s 60 (**note:** *previously similar provisions were found underTrade Practices Act 1974 (Cth)(TPA) s 74*) that implies into all consumer contracts a warranty that the services would be rendered with due care and skill. Section 64 of the *Australian Consumer Law* (**note:** *previously similar provisions were found under s 68 of the TPA*) renders any provision of a contract that purports to exclude, restrict or modify the application of the consumer warranties void. As a result of changes made to the TPA as part of the tort reforms in Australian law almost a decade ago, the *Trade Practices Amendment (Liability for Recreational Services) Act 2002* s 68B was introduced into the TPA allowing contracts for certain recreational services to be entered into by use of terms that can limit or exclude liability for tort of negligence and for breach of an express or implied warranty that services will be provided with reasonable care and skill.

In states such as Western Australia (WA) and New South Wales (NSW) certain provisions of the 'Civil Liability Acts' also deal with exclusion clauses or waiver of contractual duties of care for recreational activities that are in line with s 68B of the TPA. For example, the *Civil Liability Act 2002* (NSW) s 5N states that a contract for the supply of a recreational service may "exclude, restrict or modify any liability to which this Division applies that result from breach of an express or implied

warranty that the services will be rendered with reasonable care and skill". The section does not apply, however, where it is established (on the balance of probabilities) that the harm resulted from a contravention of a provision of a written law of the State or Commonwealth that establishes specific practices or procedures for the protection of personal safety.

In essence, the legislature purported to allow individuals who are voluntarily participating in inherently risky sport and recreational activities to take responsibility for themselves by way of allowing them to waive their rights under the TPA to sue the business providing the activity, should they suffer personal injury as a result of the service provider`s failure to supply the services with due care and skill (The Parliament of the Commonwealth of Australia, 2002, p.1).

Before the tort reforms were enacted, there were rhetorical debates among members of Parliament claiming that these reforms were crucial in order to preserve the 'Australian way of life' (sport, recreational and adventurous activities) (MacDonald, 2006, p.470). This was supported by strong lobbying from the tourism industry, amateur sporting groups as well as community groups who wanted even kite-flying competitions and picnic days to be insured by the reforms. As a result, the definition of the 'recreational services' under the TPA and the 'Civil Liability Acts' (i.e. NSW) is wider than had originally been recommended in the Negligence Review Report and includes activities which have inherent significant risks (high degree of probability) of physical harm, as well as activities which do not (Haly, 2003, p.6). Therefore, it was highlighted that the new provisions had gone too far by allowing almost all sport and recreational service providers to contract out of all their liability in order to wind back excessive personal injury claims (Haly, 2003). This was considered to be a diversion of the principles of common law far from meeting the needs and interests of the injured to favouring the interests of the wrongdoers (Field, 2008; Vines, 2002). As McDonald (2005) contended, recreational service providers could consider the new provisions as a freedom not to take basic safety precautions against foreseeable risks of injury and impose their clients to serious risks of injuries.

However, recreational service providers have to be aware of the fact that exclusion clauses or waivers may not be enforceable under all circumstances in order to bar an injury claim, as the courts generally view such documents with scepticism (Healey, 1995). Besides, even when a plaintiff is unsuccessful, the defendant would have to bear the cost of legal defence to prove that a waiver is valid (Brealey and Myers, 2003). Some of the factors that the courts consider in deciding the enforceability of an exclusion clause are whether the clause was: (1) part of the contract; (2) was appropriately worded to cover the breach that has occurred; (3) was reasonably brought to the attention of the other party; and (4) was not prohibited by statute (Encyclopaedic Australian Legal Dictionary, 2011).

Recently, there have been two major reported cases in Australia that demonstrates the enforceability of exclusion clauses used by health/fitness facility operators against negligence claims. In the case of *Kovacevic v Holland Park Holdings Pty Ltd* (2010) in the District Court of Queensland, the exclusion clause in the membership agreement was not enforceable when a plaintiff slipped and fell, suffering a fracture of her left ankle while attending a group fitness class at a gymnasium. The plaintiff alleged that her injury was caused by the negligence or breach of contract of the owner and the operator of the gymnasium. In defence of the claim, the gym operator raised a contractual argument that the plaintiff had voluntarily assumed the risks of participation. The gym operator relied on terms in the gym membership contract to the effect that the plaintiff: (1) used the gym at her own risk; (2) would not hold the operator responsible for personal injury she suffered; and (3) waived any legal claims for any injury, loss or damage she suffered.

The plaintiff counter-argued that those terms were void under s 68 of the TPA as this term of the contract purported to exclude, restrict or modify the liability of a corporation for breach of terms implied into the contract by the TPA. As the contract was for supply of services to a consumer by a corporation, s 74 of the TPA implied into the contract a warranty that the services would be rendered with due care and skill, and materials supplied in connection with the services would be reasonably fit

for the purpose for which they are supplied. In response to the plaintiff's assertion, the defendants relied on s 68B of the TPA which states that:

> (1) A term of a contract for the supply by a corporation of recreational services is not void under s 68 by reason only that the term excludes, restricts or modifies or has the effect of excluding, restricting or modifying:
> (a) the application of s 74 to the supply of the recreational services under the contract; or
> (b) the exercise of a right conferred by s 74 in relation to the supply of the recreational services under the contract; or
> (c) any liability of the corporation for a breach of a warranty implied by s 74 in relation to the supply of the recreational services under the contract;
> so long as:
> (d) the exclusion, restriction or modification is limited to liability for death or personal injury; and
> (e) the contract was entered into after the commencement of this section.

Central to the defences based on s 68B is the definition of "recreational services" and whether a defendant`s services under contention fall in to this definition. In *Kovacevic v Holland Park Holdings Pty Ltd* (2010) the defendant claimed that the exercise the plaintiff contracted for was a recreational activity and therefore the exclusion cause included in the contract was effective to exclude the implied term of the contract pursuant to s 68 of the TPA. In this regard, the court considered the exercise program that the plaintiff undertook under s 2 of 68B where "recreational services" means:

> (a) a sporting activity or a similar leisure time pursuit; or
> (b) any other activity that:
> (i) involves a significant degree of physical exertion or physical risk; and
> (ii) is undertaken for the purposes of recreation, enjoyment or leisure.

According to the definition of recreational activity provided under of s 2(a) of 68B, the trial judge McGill did not consider participation in exercise classes, such as the kind the plaintiff engaged in, as 'a sporting activity or similar leisure time pursuit' and suggested that (*Kovacevic v Holland Park Holdings Pty Ltd*, 2010, para. 35):

> [s]porting activities can cover a wide range of activities, not all of them particularly physical, but the dominant characteristic of sport is that it is competitive; the participants compete against

> each other, on either an individual or team basis. So far as the evidence before me reveals, the exercise classes were not in any way competitive. Nor does it strike me as something similar to a sporting activity. I am not sure what would be covered by the expression "similar leisure time pursuit", but although a fitness class could be described as a leisure time pursuit I would not regard it as one which was similar to a sporting activity, except perhaps to the extent that sporting activities commonly involve physical exertion.

In regard to s2(b) of 68B, Judge McGill contended that the exercise classes the plaintiff engaged was an activity which involved a significant degree of physical exertion but it was not undertaken for the purpose of recreation, enjoyment or leisure. According to McGill DCJ (*Kovacevic v Holland Park Holdings Pty Ltd*, 2010, para. 36) the exercise "...was essentially undertaken for the purpose of physical fitness, that is to say for the purpose of promoting the health and well-being of the participant." Therefore, the court was not convinced that the contract in the present case was a contract for the supply of recreational services by the gym operator.

The trial judge gave further consideration to the implications of s 2(d) of 68B of the TPA that requires the exclusion, restriction or modification to be limited to liability for death or personal injury in order to be effective. However, the waiver in the document that the plaintiff signed in:

> ...headed "Member and Guest Etiquette" extended expressly to all claims for articles lost, stolen or broken at the centre, or for loss or damage to any other property including automobiles and contents. The form headed "Application for Membership" included a waiver which included an acknowledgment that "my property and my person shall be at my own risk" and referred to both loss of property and personal injury. (*Kovacevic v Holland Park Holdings Pty Ltd*, 2010, para. 37)

As a result, the court stated that the waiver document that the plaintiff signed was void, and the gym operator could not avoid negligence in failing to take reasonable care for the plaintiff's safety.

Another case that demonstrated the enforceability of an exclusion clause incorporated into a membership agreement of health/fitness facility is *Belna Pty. Ltd. v Irwin* (2009) in the New South Wales Court of Appeals. The plaintiff Irwin and the defendant Belna Pty Ltd, better known as Fernwood, had entered into a contract by which Irwin became a member of the gym. After the contract was signed, one of the

fitness instructors employed by Fernwood worked out an exercise program for Irwin to undertake. Irwin suffered injuries from her knee while performing lunges as part of her exercise program that was designed for her. As a result, Irwin brought a claim against Fernwood for breach of duty of care and breach of contract.

At the appeal Fernwood argued that the trial judge erred in finding breach of duty of care. An important fact in the case was that in September 2000 Irwin slipped and fell in a shopping centre and dislocated or strained her left knee cap. Her knee was put in a brace for some months and she took painkillers. Before an exercise program was prepared for Irwin, she was required to complete a pre-exercise questionnaire. In responding to an item in the questionnaire about "joint injuries", Irwin wrote, "Fell over in a shopping centre. Knee." When the fitness instructor asked Irwin whether she had had any problems with her knee since the accident, Irwin replied that her knee was "fine" and "she had no injury with her knee'.

Irwin testified that she told the fitness instructor that she wanted to make sure that the exercises did not damage her knee "any more" and she asked the fitness instructor whether the exercises she had prescribed were "okay". Appellate Judge Ipp affirmed the trial judge`s statement that Irwin did not say to the fitness instructor that she was still experiencing symptoms from the injury, rather, she wanted to make sure that the exercises that were prescribed for her would not damage her knee. Furthermore, Judge Ipp stressed the testimony of the expert examiner critical to the trial judge`s decision that there had been a breach of duty of care. The expert examiner had stated that it is a well-known fact that having had a patella dislocation a person tends to become more prone to other dislocations (*Belna Pty Ltdv Irwin,* 2009). Therefore, requiring a person to do a lunge exercise that stress the musculature around the knee joint "without much training or preparatory type work" was "really exposing a person's knee joint to a high risk" (*Belna Pty. Ltd. v Irwin,* 2009, para. 29). From this stand point, Judge Ipp stated that once Irwin had raised the issue that she had had in the past a knee injury that involved a dislocation, a comprehensive history should have been sought to fully understand the nature of any pre-existing physical or injury type problems, and therefore found Fernwood negligent.

As a defence, Fernwood claimed that the exclusion clause that Irwin signed as part of her contract was effective to exclude its liability under s 5N of the *Civil Liability Act 2002* (NSW). Section 5N (1) states that:

> [d]espite any other written or unwritten law, a term of a contract for the supply of recreation services may exclude, restrict or modify any liability to which this Division applies that results from breach of an express or implied warranty that the services will be rendered with reasonable care and skill.

In determining the effectiveness of the exclusion clause, Judge Ipp first considered whether the services that Irwin contracted for fell under the definition of "recreational activity" provided under s 5K of the *Civil Liability Act 2002* (NSW). Section 5K states that a "recreational activity" is:

> (a) any sport (whether or not the sport is an organised activity), and
> (b) any pursuit or activity engaged in for enjoyment, relaxation or leisure, and
> (c) any pursuit or activity engaged in, at a place (such as a beach, park or other public open space) where people ordinarily engage in sport or in any pursuit or activity for enjoyment, relaxation or leisure.

In regard to s 5K (a) Judge Ipp applied an objective test and contended that (*Belna Pty. Ltd. v Irwin*, 2009, para. 13):

> …[t]he Oxford English Dictionary contains many definitions of 'sport'. Perhaps the most apposite in the context of the statute is "participation in activities involving physical exertion and skill". I would add to this definition the element of participation in those activities for purposes of enjoyment, relaxation or leisure, as s 5K provides. The exercise program undertaken by Irwin involved participation in activities of that kind and, according to ordinary English usage, fell within the meaning of 'sport'.

In relation to s 5K (b), Judge Ipp applied a subjective test concluding that loss of weight and achievement of physical fitness was only a by-product of the exercises that Irwin intended to perform. Therefore, Irwin`s statements on the questionnaire did not change the fact that she undertook the activities for enjoyment, relaxation and leisure. Parenthetically, this decision contrasted with the decision of the trial court where the District Court concluded that Irwin`s long-term goal to lose weight and

become fit excluded the exercise program undertaken by Ms Irwin from the definition of the "recreational activity" under s 5K of the Act. As an analogy, Judge Ipp gave the example of "a person who runs marathons in the heat of summer does so for enjoyment, relaxation and leisure, even though she may hope to lose weight in the process" (*Belna Pty Ltdv Irwin*, 2009, para. 14). Furthermore, Judge Ipp stated that the exercises Irwin engaged in also fell within the definition of recreational activities in s 5K (c) "where people ordinarily engage in sport or in any pursuit or activity for enjoyment, relaxation or leisure" and the reference in the sub-paragraph to "a beach, park or other public open space" did not limit the general meaning of the other words in the sub-paragraph. As a result, the court decided that the exercises that Irwin had contracted for fell under the definition of "recreational activity" and therefore the exclusion clause was taken into consideration as a defence.

Even though the exclusion clause that Fernwood used could potentially be considered as a valid defence to exclude liability under s 5N, it did not successfully do so. The exclusion clause in the contract included the following terms (*Belna Pty Ltdv Irwin*, 2009, para. 38):

> [i]t is my expressed interest in signing this agreement, to release Fernwood Fitness Centre, its Directors, Franchises, Officers, Owners, Heirs and assigns from any and all claims for professional or general liability, which may arise as a result of my participation, whether fault may be attributed to myself or its employees. I understand that I am totally responsible for my own personal belongings whilst at the Centre. I also understand that each member or guest shall be liable for any property damage and/or personal injury while at the Centre.

Judge Ipp pointed to several major problems with the construction of the exclusion clause. Firstly, his honour suggested that the clause (*Belna Pty. Ltd. v Irwin*, 2009, para. 39):

> …records an "expressed interest", which is a concept of indeterminate meaning. At best for Fernwood, the clause provides for a release, which ordinarily has effect only after liability has been incurred. A release, ordinarily, is not an exclusion of liability for breaches of duty that may occur in the future. The phrase "professional or general liability" may or may not encompass negligence or breach of contract. The phrase "fault ... attributed to myself or its employees" is difficult to understand. The purpose and meaning of the last sentence of the clause casts further obscurity on its meaning as a whole.

Finally, Judge Ipp affirmed the trial judge`s decision and concluded that the clause was not merely ambiguous, but it was likely unintelligible. Judge Ipp also held that the exclusion clause was so vague as to be meaningless and could not reasonably be construed as exempting Fernwood from liability as it contended.

6.8. Use of Parental Waivers

Results from the 2007-2008 National Health and Nutrition Examination Survey (NHANES), indicate that an estimated 17% of children and adolescents ages 2-19 years in the United States are obese and have not changed much from the 1999-2000 figures (Ogden et al., 2010). Similarly, the Australian National Health Survey 2007-08 inferred that 25% of children aged 5-17 years old are classified as overweight or obese. In this line, the ACSM`s report about the worldwide fitness trends revealed that health/fitness professionals believe the exercise programs for children to be the most promising trend in the fitness industry (Thompson, 2007). Not surprisingly, a recent fitness industry survey in the United States showed that 30% of the surveyed facilities were offering 'teen fitness' (e.g. classes or after-school camps for 13-17 years) programs while 61% believed that these programs would grow (Schroeder and Friesen, 2009). In Australia, according to a survey conducted among Fitness Australia members, 75% of the health/fitness facilities in New South Wales offered physical activity programs for children or young adolescents (Parker, 2003). With government policies that support physical activity as a preventative measure against childhood obesity (Martin, 2008; Stewart et al., 2008; MHA, 2009), it is likely that more children will be brought into health/fitness facilities by their parents.

As a consequence, Fitness New South Wales (NSW) and the Children`s Hospital Institute of Sports Medicine have jointly published the 'Kids in gyms' guidelines for the fitness industry to guide children participating in gyms in a safe and supervised environment (Parker, 2003). In addition to risk management guidelines such as pre-exercise screening, staff/child supervision ratio and qualifications of fitness personnel, these guidelines recommend that health/fitness facilities have:

> ...parents or guardians sign centre membership contracts entered into by children or young adolescents under the age of 18 years. However, centres may, at their discretion, sign a membership contract directly with an adolescent between 16 and 18 years old. (Parker, 2003, p.12)

Many health/fitness facilities incorporate waivers or exclusion clauses into their membership contracts for minor (children) participants as well as adult clients as a line of defence against negligence claims (Cotten and Young, 2007). As discussed in the previous section properly executed exclusion clauses and waivers may be effective as a risk management tool to preclude a successful negligence lawsuit filed against a health/fitness facility. What remains in question is whether health/fitness service providers can successfully exempt themselves from liability by use of waivers signed by the parents or guardians of the children (Healey, 1995). In general, a minor (a person under the age of 18) is not expected to have the capacity and maturity to make wise decisions and foresee the risks in the environment. Therefore, principles of common law aim to protect them from themselves and exploitation by others by ways of not binding them to a contract until they reach the age of maturity (18 years old) (Dietrich, 2007). For this reason, a waiver cannot prevent a minor from taking legal action for personal injury after reaching the age of majority.

This rule was reinforced in Michigan in the United States, where a ten year old girl was injured when another child jumped into a swimming pool on top of her (*Smith v YMCA of Benton Harbor/St. Joseph*, 1996). The victim's parents had signed a waiver that released the pool owner from liability for all injury to the minor in exchange of a lump sum of US$3, 275. Eight years after the accident, the victim filed suit against the YMCA. Derived from the general rule in Michigan that a parent has no authority to waive, release, or compromise claims by or against his or her child, the court ruled that the waiver was void and did not protect YMCA from liability. However, one rule does not apply to all jurisdictions. In the United States, 11 states have either passed legislation (Alaska, Arizona, Colorado, and Indiana), or there have been court rulings (California, Connecticut, Florida, Massachusetts, North Dakota, Ohio, and Wisconsin) that supported the enforceability of parental waivers (Cotten and Young, 2007). For example, in Ohio (*Zivich v Mentor Soccer Club, 1998*) the

court enforced a parental waiver suggesting that it was not against public policy to provide recreational opportunities for youth as it eventually benefited the public as a whole. The court also highlighted that the decision made by the parents to take the risks fell within the right to contract. Similarly, in Massachusetts (*Sharon v City of Newton, 2002*), the court ruled that the parental waiver signed by the parent of an injured cheerleader was enforceable due to the fact that parents had the ultimate liberty in rearing their children and their decisions that bore certain risks were no different.

As mentioned earlier in the preceding section, the *Australian Consumer Law* gave the recreational service providers the right to contract out of their implied duty of care by use of exclusion clauses or waivers as part of the tort reforms in the Australian law. Therefore, there have been criticisms that the increased use of waivers by recreational service providers can create the illusion on the parents or the guardians of the minors that the parental waivers that they sign are valid and therefore be dissuaded from bringing a legal action for injuries caused by a negligent service provider (Dietrich, 2007; Gregory, 2005). Furthermore, industry guidelines such as the 'Kids in gyms' (Parker, 2003, p.12) can further encourage health/fitness facilities to make use of parental waivers or sign waivers directly with a person between 16 and 18 years old, although such contracts would be void under the principles of contract law that purport not bound a person under the age of 18 to a contract.

Section 52(1) of the TPA states that "a corporation shall not, in trade or commerce, engage in conduct that is misleading or deceptive or is likely to mislead or deceive". Section 75AZC also states that:

> [a]corporation must not make a false or misleadingrepresentation about the existence, exclusion or effect of any condition, warranty, guarantee, right or remedy, in trade or commerce, in connection with the supply or possible supply of goods or services, or in connection with the promotion by any means of the supply or use of goods or services.

In this regard, health/fitness facility managers must be aware of the fact that use of parental waivers or waivers signed by young adolescents between 16 and 18 years old can also be considered as a false and misleading representation of their

business by way of giving the minors the illusion that their right to claim damages for injuries that may result from the proposed activity does not exist (Dietrich, 2007). Therefore, health/fitness facility operators should aim to put best risk management practices in place to protect the safety and well-being of minors and young adolescents rather than trying to bind them to a contract in an effort to avoid negligence claims after the injury and harm is caused (Eickhoff-Shemek, Herbert and Connaughton, 2009).

SUMMARY

Chapter 2 of this thesis - the literature review - was constructed under six Sections.

Section 1 outlined the sources of legal liability for health/fitness facilities in Australia. Subsection 1.1 outlined the principles of common law. Subsection 1.2 described tort law and the underpinning legal terms such as negligence and the elements in a negligence case that are of particular importance to health/fitness facilities in Australia to cope with risks of legal liability that can arise from the services that they provide.

Section 2 identified what risk management is and highlighted some of the benefits an organization can achieve by implementing a risk management plan.

Section 3 explored the five-step risk management process under five subsections entitled: (3.1) establishing organization goals and context; (3.2) risk identification; (3.3) risk analysis; (3.4) risk evaluation; and (3.5) risk treatment. Section 4 set out some of the most highlighted benefits associated with the implementation of a risk management program in health/fitness facilities such as minimisation and/or prevention of legal liability, improved quality of service, and enhanced image and reputation.

Section 5 drew the framework of the Australian health/fitness industry with subsections 5.1 and 5.2 that set out the training and registration standards in the health/fitness industry both at the national and international level.

Section 6 elaborated on possible risks that health/fitness facilities can face in their business operations and have to be aware of before effective risk management can take place. Subsection 6.1 illustrated risks involved with the training strategies used by personal fitness trainers that health/fitness facility managers have to consider while developing and implementing their risk management programs. Subsection 6.2 demonstrated risk of injuries and legal liability pertinent to ineffective maintenance and inspections in health/fitness facilities. Subsection 6.3 analysed current international and national standards in the health/fitness industry in pre-activity screening procedures, and illustrated risk of injuries and legal liability issues that can

arise due to a failure to implement proper pre-exercise screening procedures in health/fitness facilities. Subsection 6.4 outlined the health/fitness industry standards in the United States in relation to the use of automated external defibrillators (AEDs), demonstrated the possible consequences of a failure to meet the industry standards requiring the use of AEDs, and showed the possible impact of Good Samaritan type legislation in Australia as supporting the deployment of lifesaving AEDs in the local industry without fear of legal liability. Subsection 6.5 demonstrated risks of injuries and legal liability issues related to construction and design of health/fitness facilities. Subsection 5.6 highlighted the importance of adhering to occupational health and safety laws and regulations in order to avoid risk of injuries and subsequent legal liability concerns in health/fitness facilities. Subsection 6.7 illustrated the use and effectiveness of waivers in limiting or excluding liability of health/fitness facilities for injuries caused to the patrons resulting from negligently provided services. Finally, subsection 6.8 outlined the use and the extent of the effectiveness of parental waivers in limiting or excluding liability of health/fitness facilities for injuries caused to the minors resulting from negligently provided services.

All in all, the literature review of this study highlights the importance of implementation of comprehensive risk management programs in health/fitness facilities to prevent injuries or death of their members and subsequent legal liability claims that can arise from negligently provided services that such facilities provide.

CHAPTER III

METHODOLOGY

The main purpose of this study was to investigate implementation of risk management practices in the health/fitness facilities in Queensland. Secondary aims of this study were: (a) to identify the potential sources of legal liability in the health/fitness industry, which will help (b) to develop a risk management assessment questionnaire for health/fitness facilities. In this regard, the information gathered from the literature review was used to develop a risk management assessment questionnaire for health/fitness facilities. The reason why survey design was used for this study was because this is the preferred method to monitor, assess and control the internal risk management processes in organisations (Standards Australia, 2004b). During the questionnaire development process, previous research that used survey design to investigate risk management practices in recreational sport organisations was taken as model (Hsiao, 2005; Singh, 1999).

1. Subjects

The study was ethically approved by Bond University Human Research Ethics Committee by 28 April, 2009 (APPENDIX A). All of the health and fitness facilities in Queensland (n=262), whose contact information and e-mail addresses could be gathered using Australia's online gym directories and yellow pages were asked to participate in the study. Twenty-one per cent of the health/fitness businesses

registered to Fitness Australia are in Queensland preceding Victoria (22%) and New South Wales (35%) (Fitness Australia, 2010a). Due to legislative/regulatory differences between states/territories in addition to budgetary and time constrains of the research study, data was collected only from Queensland that represents a significant portion of the health/fitness industry in Australia. Participation in the study was voluntary and all the participants were required to read and accept the terms on the informed consent form (APPENDIX B) before filling in the Health Fitness Industry Risk Management Questionnaire (HFRMQ) (APPENDIX C).

Overall, 52 health/fitness facility managers volunteered to participate in the study yielding a 20% return rate, which was similar to the return rate achieved in a study where data was collected from health/fitness facility managers in the United States to investigate medical emergency risk management practices (Connaughton, Spengler and Zhang, 2007). However, there may be several mitigating circumstances for the low return rate of this study. Firstly, the subjects may not have wanted to reveal 'legal-related' data, especially if they were not doing something they felt they should have been. Secondly, some of the big health/fitness facility chains did not want to participate in the study arguing that they were providing fitness services to help their clients with weight loss and therefore they should not be considered among recreational health/fitness facilities. Thirdly, most of the health/fitness facility managers suggested that they were too busy and did not have enough time to participate in the study. Therefore, in a future study the current version of the HFRMQ can be redrafted to decrease the number of items in the questionnaire that can help to shorten the response time.

2. Instrumentation

The HFRMQ developed by the researcher incorporated information gathered from the review of literature (APPENDIX C). There are four main categories in the questionnaire; (1) Facilities and Equipment, (2) General Practices, (3) Demographic Information, and (4) General Opinions about Risk Management. The first category includes three dimensions of risk management practices, namely, Inspections,

Maintenance, and Programs. The second category includes five dimensions of risk management practices, namely, Emergency Plans, Construction and Design, Participant/ Membership Forms, Insurance, and Staff/Personnel. The third category includes descriptive questions about the manager, the institution, and the facility. The fourth category asks the participants to rank the level of importance of the selected risk management practices pertaining to their risk management profiles. The first two categories of the questionnaire are on a 5 point Likert Scale from 'Strongly Disagree' to 'Strongly Agree', while the fourth category is on a 5 point Likert Scale from 'Unimportant' to 'Very Important'. The HFRMQ was developed both as pencil - and - paper and online in order to increase cost effectiveness and time efficiency in administration and response time (Olsen and Brown, 2004; Shannon and Bradshaw, 2002; Solomon, 2001).

2.1. Validity

The first version of the HFRMQ consisted of 88 items. First, face validity of the questionnaire was conducted with a pilot study. Face validity refers to whether the test looks valid to the technically untrained observers (Anastasi, 1988, p.144). On one hand, Courtney (1978, p. 51) suggests that for most purposes 30 to 100 interviews is adequate for a pilot study. Sudman (1983, p. 181), on the other hand, suggests that "a pilot test of 20-50 case is usually sufficient to discover the major flows in a questionnaire before they damage the main study". According to Sheatsley (1983, p. 226) "it takes no more than 12-25 cases to reveal the major difficulties and weaknesses in a test questionnaire". In this light, HFRMQ was pilot tested by 30 randomly selected individuals who were randomly assigned to either the pencil – and - paper or the online version of the HFRMQ. The feedback received from the pilot groups was used to ensure that the questions were comprehensible, and the respondents could understand the routeing instructions (Brace, 2004, pp.164-165). The feedback received from the pilot groups were also used to determine the amount of time required to complete the HFRMQ and to ensure that the online survey tool (SurveyMonkey) worked properly (Brace, 2004, p.165).

The HFRMQ was then tested for content validity in order to ensure whether the items of the questionnaire were appropriate and adequate to address the objectives of the study (Berg and Latin, 1994). For this purpose, a panel of experts was consulted. They were chosen from both national and international stakeholders of the health/fitness industry. The panel consisted of two professors specialized in risk management in sport and recreation, a sports lawyer, a health and fitness facility manager, and a risk management consultant/insurance broker. Following their input, some of the items were added, redesigned or eliminated. The final version of HFRMQ consisted of 83 items in total (Figure 8).

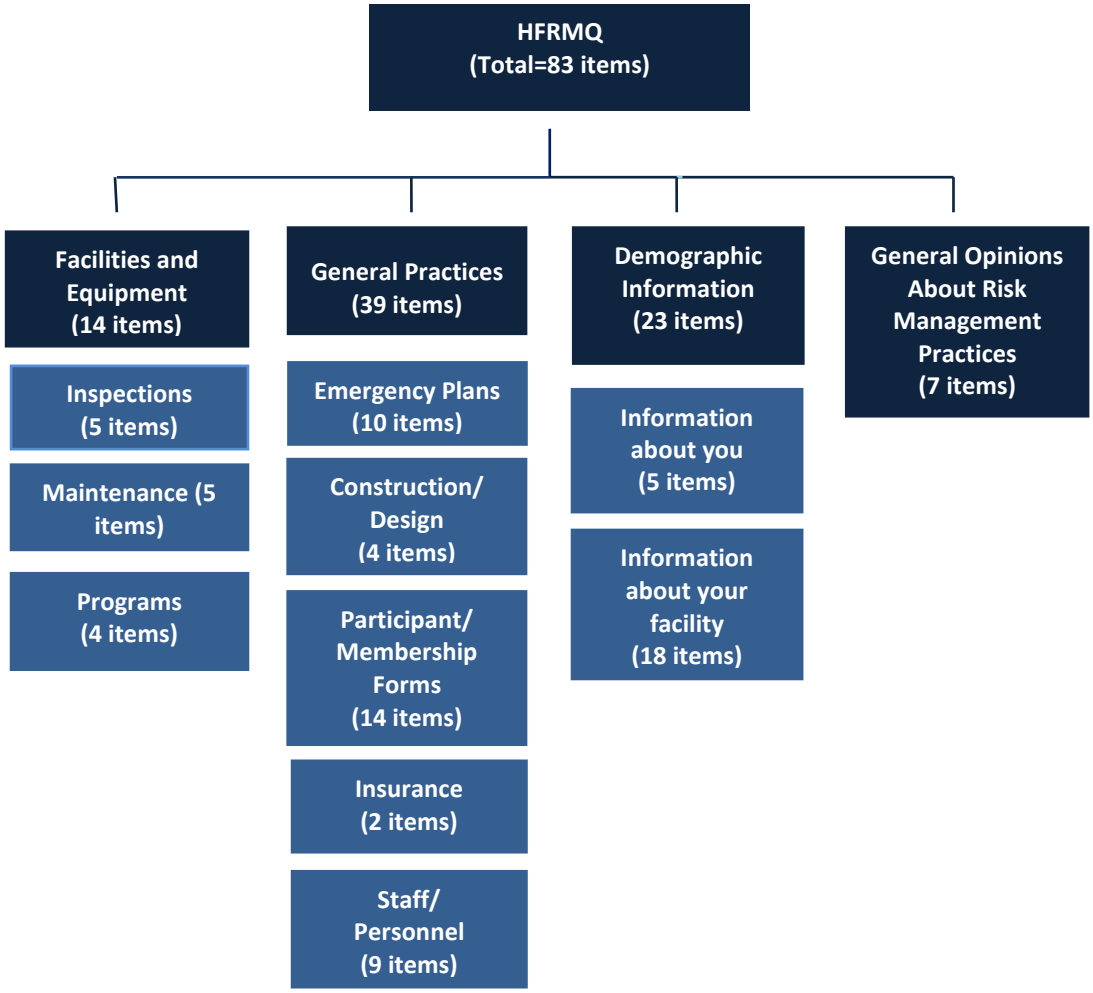

Figure 8. Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

2.2. Reliability

Internal consistency was used in order to ascertain reliability of eight of the HFRMQ dimensions excluding demographic information and general opinions about risk management practices. Internal consistency measures to what extent the items that attempt to measure a single conceptual domain provide consistent or similar responses (Brace, 2008). For this purpose Cronbach's alpha (α) was used as a measure of internal consistency based on correlation between items measuring a single conceptual domain (Cronbach, 1951). A commonly accepted rule of thumb is that an alpha (α) level of .6- .7 indicates acceptable reliability, and .8 or higher indicates good reliability (Klein, 1993). Reliabilities higher than .95 are not necessarily desirable, as this indicates that the items may be entirely redundant that is, a number of items may be asking the same question in slightly different ways (Streiner and Norman, 2003). In this line, all eight dimensions of the HFRMQ showed high reliability with α values ranging from .689 to .891(Table 4).

Table 4. Cronbach`s Alpha Coefficients for the HFRMQ Scales

Scale	α	Number of items
Inspections	.877	5
Maintenance	.769	5
Programs	.689	4
Emergency Plans	.814	10
Construction/Design	.753	4
Participant/Membership Forms	.834	14
Insurance	.825	2
Staff/Personnel	.891	9

3. Data Collection

The data collection was conducted using a step-wise approach. First, the electronic version of HFRMQ was sent to the managers of the health/fitness facilities using the

researcher`s affiliate e-mail address. The e-mail included a cover letter with a hyperlink directed to the web page of the electronic survey.The first page of the electronic survey included the informed consent form. As per requirement for participation in the study, the participants had to check the button at the end of the informed consent form page confirming 'I accept that I have thoroughly read and understand this consent form'.The participants were asked to return the electronic survey to the researcher by clicking on the "Submit" button once they completed. All of the electronic responses of the participants were collected in a database. The anonymity of the participants was protected by giving unique numbers to the responses. The IP addresses or the e-mail addresses were not collected in the database.

A week after the electronic survey was sent, two reminder mails were sent in two week intervals to the participants who had not responded to the e-mail. This was followed by telephone calls to ask the participants if they had received the invitation e-mails and the reasons for their non-response. As a final step, the questionnaires were sent by standard mail delivery to the health/fitness facility managers who did not respond at all. The standard mail included a cover letter, the informed consent form and a pre-paid return envelope for ease of response. Following the second week the surveys were sent, follow-up telephone calls were conducted in two week intervals to ask the participants if they had received the mails and the reasons for their non-response.

4. Data Analysis

All statistical analyses were conducted by Predictive Analytics Soft Ware (PASW) Statistics 18. Before conducting the statistical analyses of the research questions and the hypotheses, all of the HFRMQ items and scales were analysed using Spearman`s rho correlational analysis and descriptive statistics. In order to answer the research questions 1 - 3, 7 - 8, and 13 - 18 results of the descriptive statistics were used. For the research questions and the hypotheses that required the analysis of the differences between non-normal independent groups the Mann-Whitney and Kruskal-Wallis non-

parametric independent samples tests were conducted. Statistical tests that were used to analyse the null hypotheses are as given below.

$H_0$1: There is no difference between registered and non-registered health/fitness facilities in adherence to risk management practices.

Mann-Whitney independent samples test was conducted to investigate differences between registered and non-registered health/fitness facilities in terms of adherence to risk management practices.

$H_0$2: The number of injuries sustained in health/fitness facilities has no effect on the number of legal liability related cases.

Kruskal-Wallis independent samples test was conducted to analyse if there was any difference between health/fitness facilities in terms of the number of injuries and the number of legal liability cases these facilities have had.

$H_0$3: The size (m^2) of health/fitness facilities does not affect the number of accidents/ injuries sustained in health/fitness facilities.

Kruskal-Wallis independent samples test was conducted to investigate if there was any difference between health/fitness facilities of different sizes (meter square) and the number of accidents/ injuries these facilities have had.

$H_0$4: The number of members of health/fitness facilities does not affect the number of accidents/ injuries sustained in health/fitness facilities.

Chi-square test of independence was conducted to analyse whether there was a significant relationship between the member population of health/fitness facilities and the number of injuries sustained in health/fitness facilities.

$H_0$5: The number of daily members of health/fitness facilities does not affect the number of accidents/ injuries sustained in health/fitness facilities.

Chi-square test of independence was conducted to analyse whether there was a significant relationship between the daily member population of health/fitness facilities and the number of injuries sustained in health/fitness facilities.

$H_0$6: **Allocation of financial resources does not affect adherence to risk management practices.**

Mann-Whitney independent samples test was conducted to investigate differences in adherence to risk management practices of health/fitness facilities that have and don`t have a line item budget for risk management practices. Kruskal-Wallis independent samples test was conducted to analyse if the percentage of allocated financial resources has an effect on adherence to risk management practices.

$H_0$7: Having a risk management plan does not affect adherence to risk management practices.

Mann-Whitney independent samples test was conducted to analyse if there was any difference between health/fitness facilities who have and don`t have a risk management plan in adherence to risk management practices.

$H_0$8:There is no difference in adherence to risk management practices between health/fitness facilities that have legal liability claims and do not have legal liability claims.

Mann-Whitney U independent samples test was conducted to analyse if there was any significant difference in adherence to risk management practices between health/fitness facilities that have legal liability claims and do not have legal liability claims

CHAPTER IV

RESULTS

One of the secondary aims of this study was to develop a risk management assessment questionnaire to use in the investigation of risk management practices in the health/fitness facilities in Queensland. After the questionnaire (HFRMQ) was developed, it was sent to 262 health/fitness facilities in Queensland. As the data collection process was completed, the number of questionnaires that were totally completed and returned was 52, indicating a return rate of 20%. All of the statistical analyses were conducted using PASW Statistics 18, and the significance level for all analyses was set at $p \leq .05$. The results of the statistical analyses of the research questions and the related hypotheses are given in the following Section.

1. Results of the Research Questions and Hypotheses

1) What are the type, size, member population and registration status of health/fitness facilities in Australia?

The health/fitness facilities that participated in this study identified themselves as either public (48.1%) or private (48.1%) institutions. According to other responses 3.8% of facilities identified themselves as either ‘not for profit’ (1.9%) or as a ‘teaching gym’ (1.9%) (Figure 9.a).

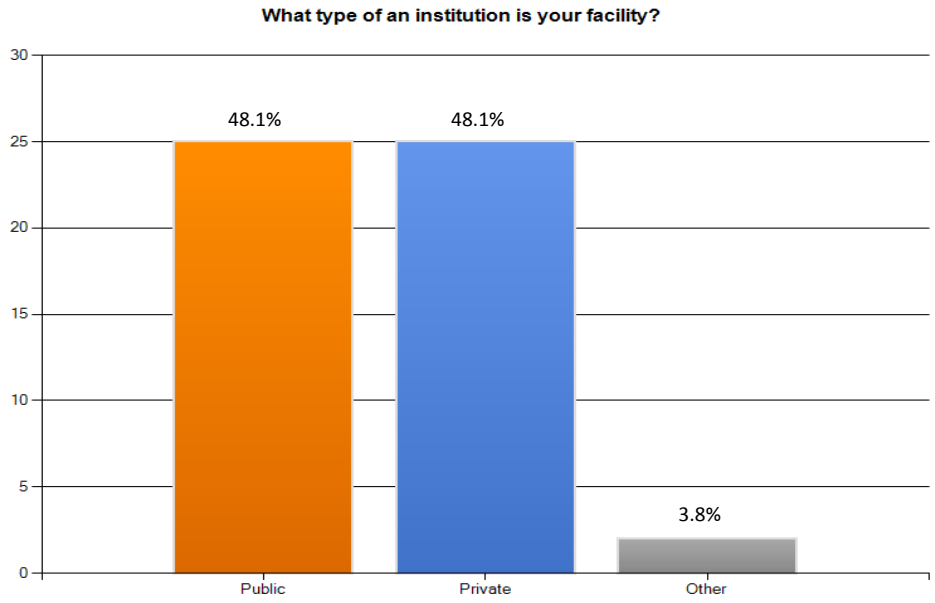

Figure 9.a. Types of health/fitness facilities

The size of most of the health/fitness facilities was between 1000-3000 m^2 (34.6%) (Figure 9.b).

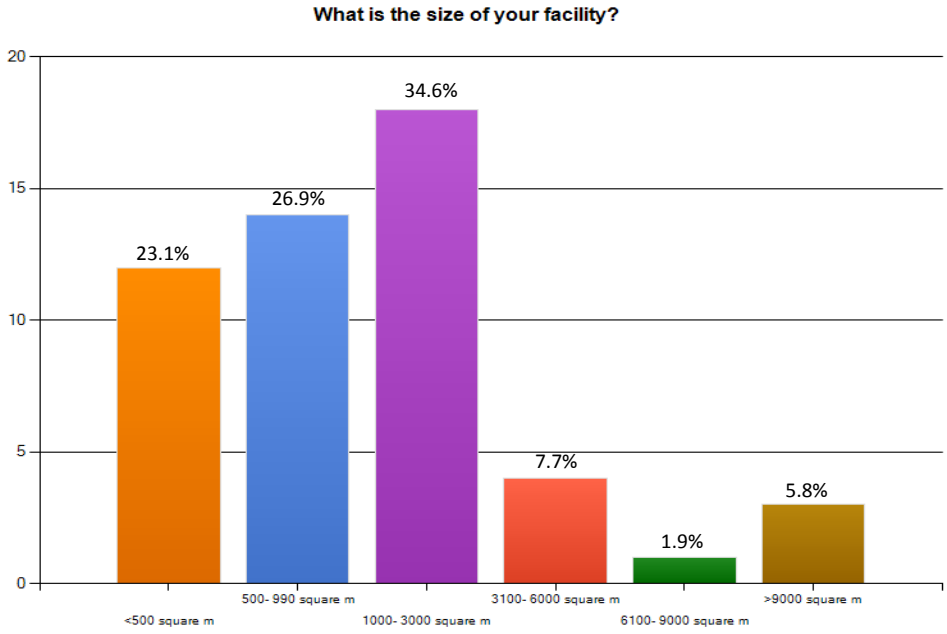

Figure 9.b. Size of health/fitness facilities

As Figure 9.c shows, the daily average member population of most of the health/fitness facilities was between 101- 500 (38.5%) and less than 100 (36.5%).

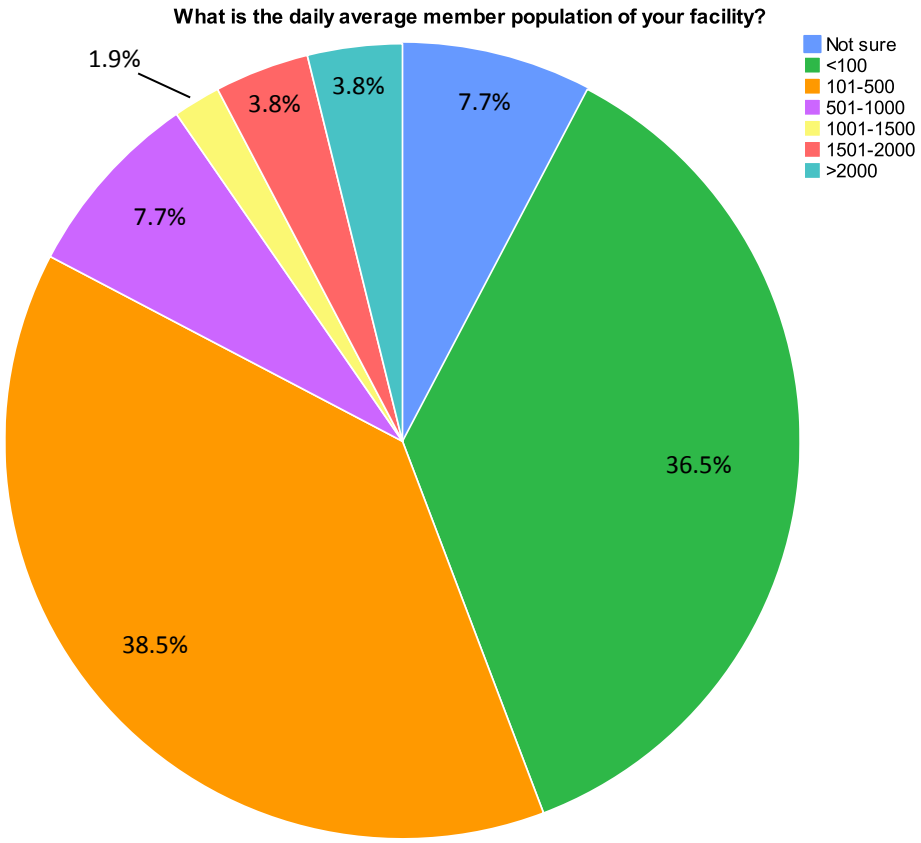

Figure 9.c. Daily average member population of health/fitness facilities

In comparison, the average member population of half of the health/fitness facilities was between 101- 500 (26.9%) and 501- 1000 (23.1%) (Figure 9.d).

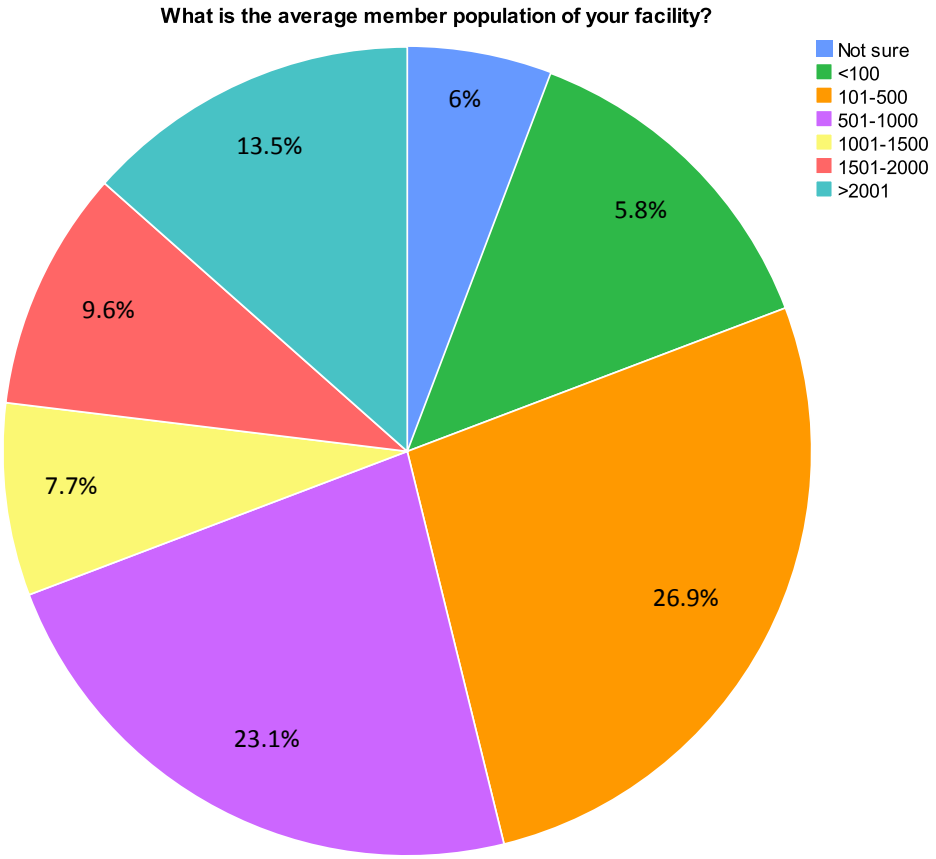

Figure 9.d. Average member population of health/fitness facilities

When health/fitness facilities were asked about their registration status with Fitness Australia, 82.7% of the participants reported that their health/fitness facility was registered, while 17.3% reported that their health/fitness facility was not registered to Fitness Australia (Figure 9.e).

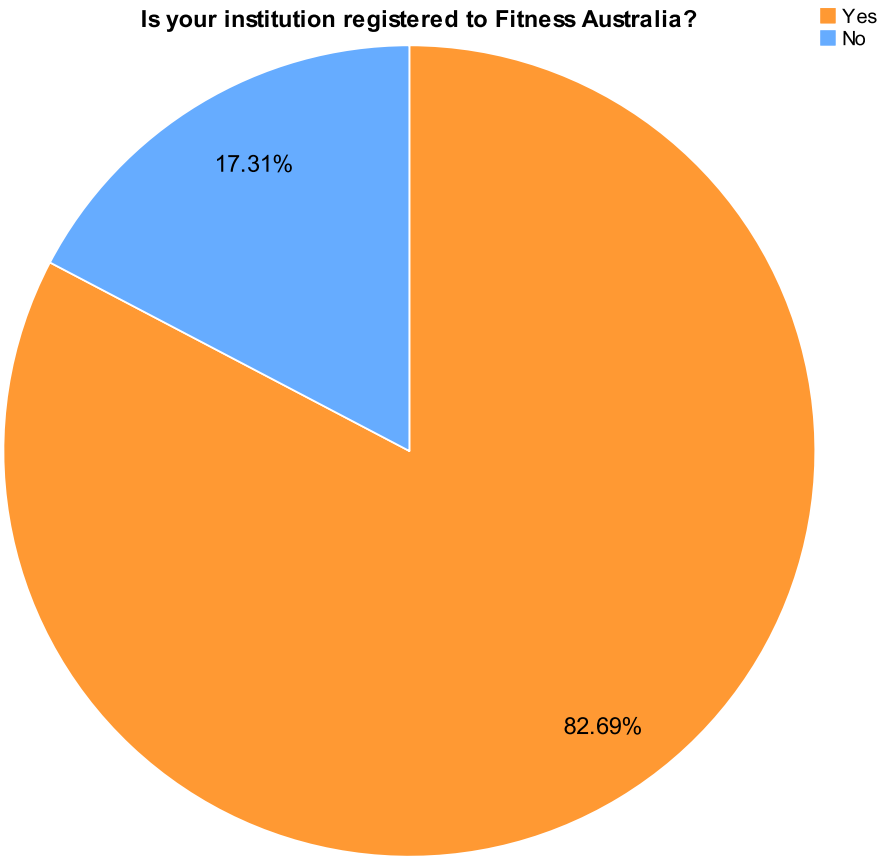

Figure 9.e. Registration status of health/fitness facilities

2) What are the demographics of the health/fitness facility managers?

The participants in this study identified themselves as either manager (65.4%) or owner/manager (34.6%) of their health/fitness facilities (Figure 10.a).

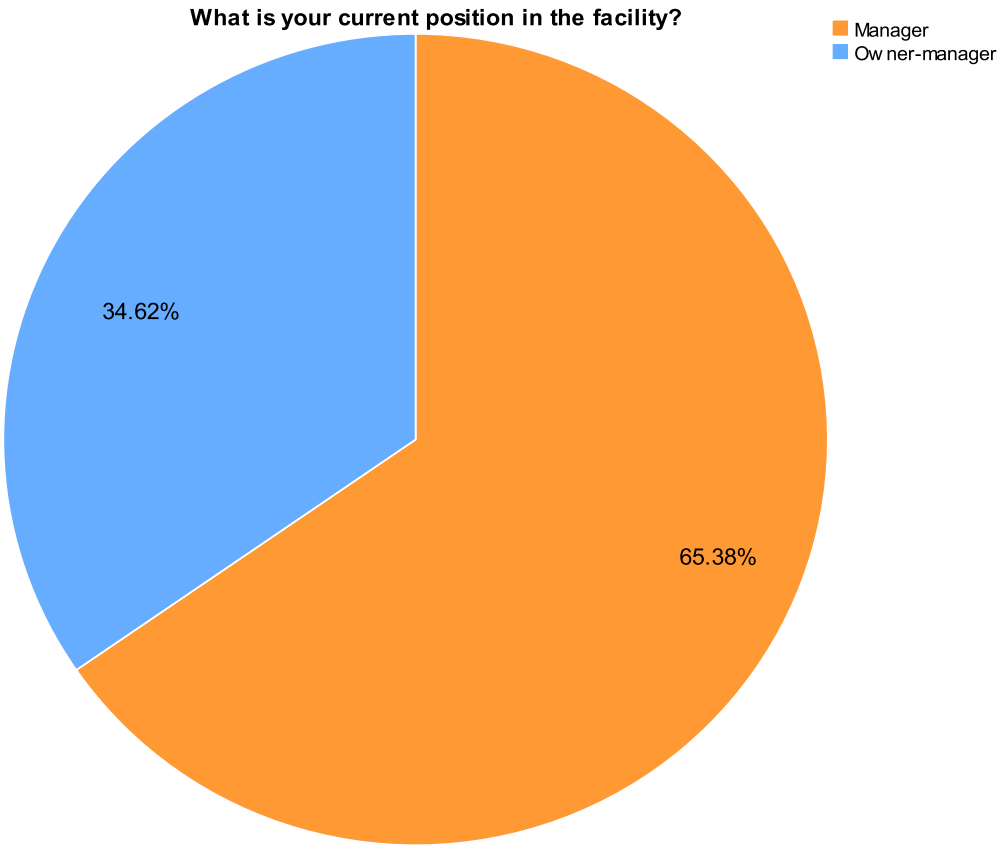

Figure 10.a. Position of the participants in the study

The gender of health/fitness facility managers and owner/managers were evenly distributed with females (51.9%) exceeding males (48.1%) by 3.8% (Figure 10.b).

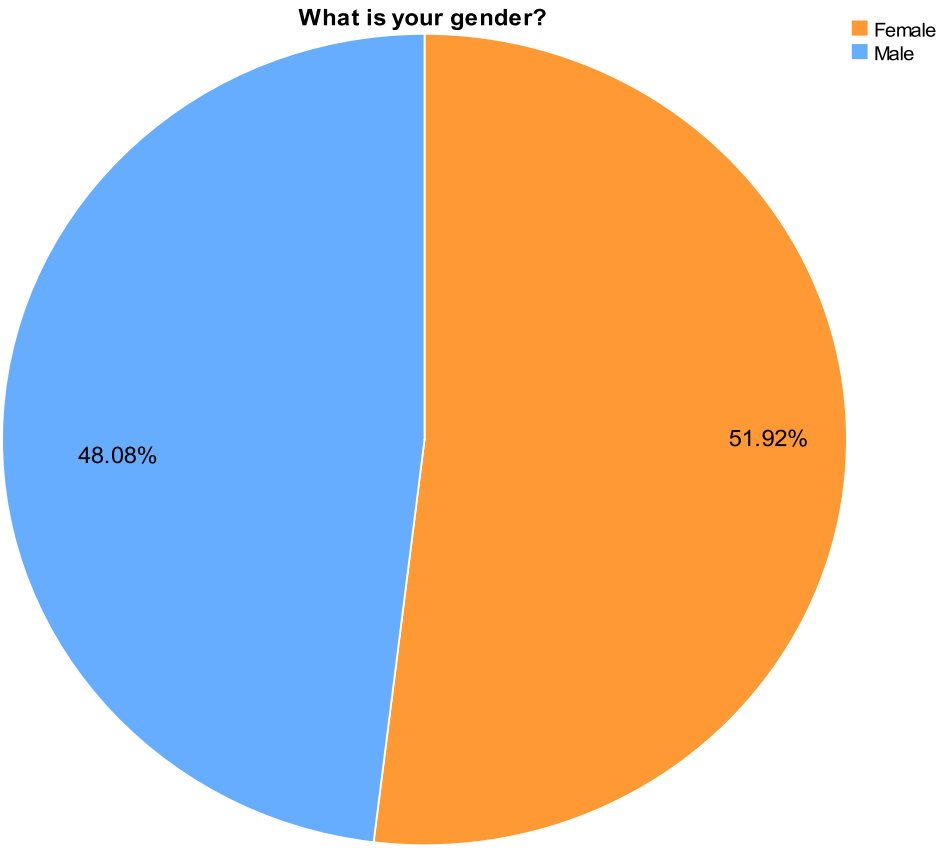

Figure 10.b. Gender of health/fitness facility managers

The most common age among the health/fitness facility managers was between 35-44 years of age (Figure 10.c).

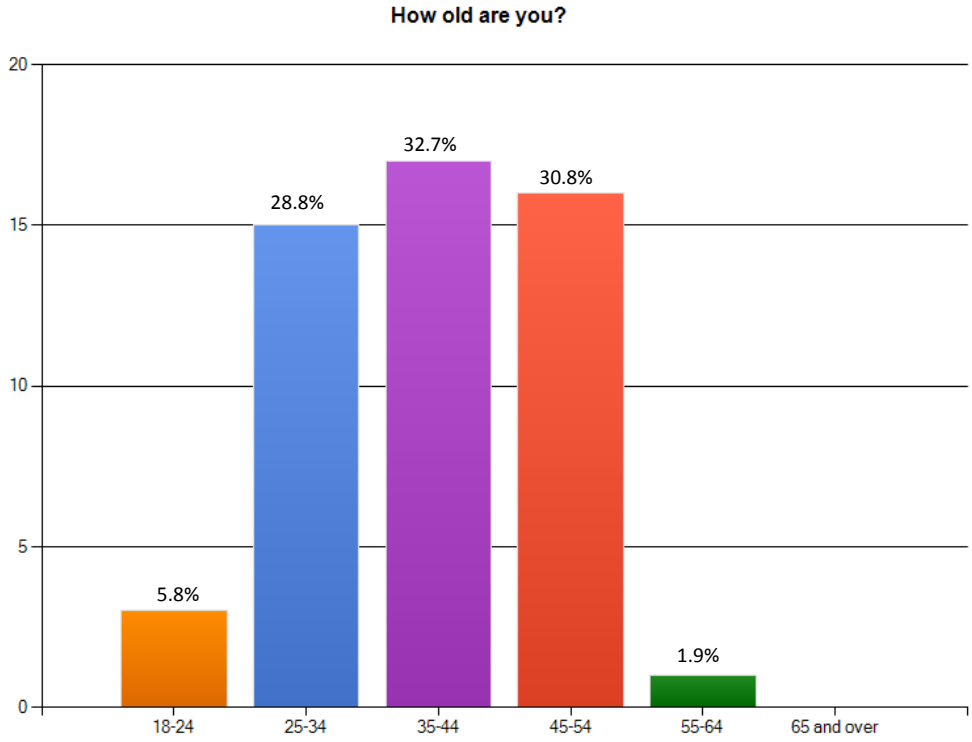

Figure 10.c. Age of health/fitness facility managers

The majority of the health/fitness facility managers reported that they have spent 1-5 years in their current position (59.6%) (Figure 10.d).

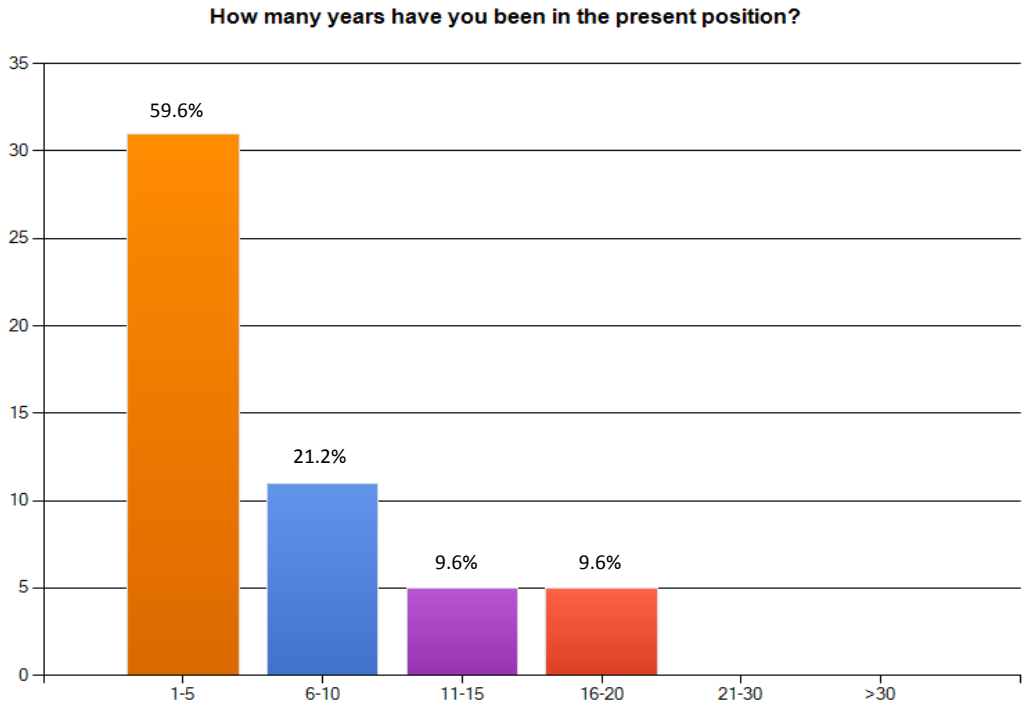

Figure 10.d. Years health/fitness facility managers spent in their current positions

When the managers were asked about their years of experience in the health/fitness business largest percentage reported that they have been in the health/fitness business for 6-10 years (36.5%) (Figure 10.e).

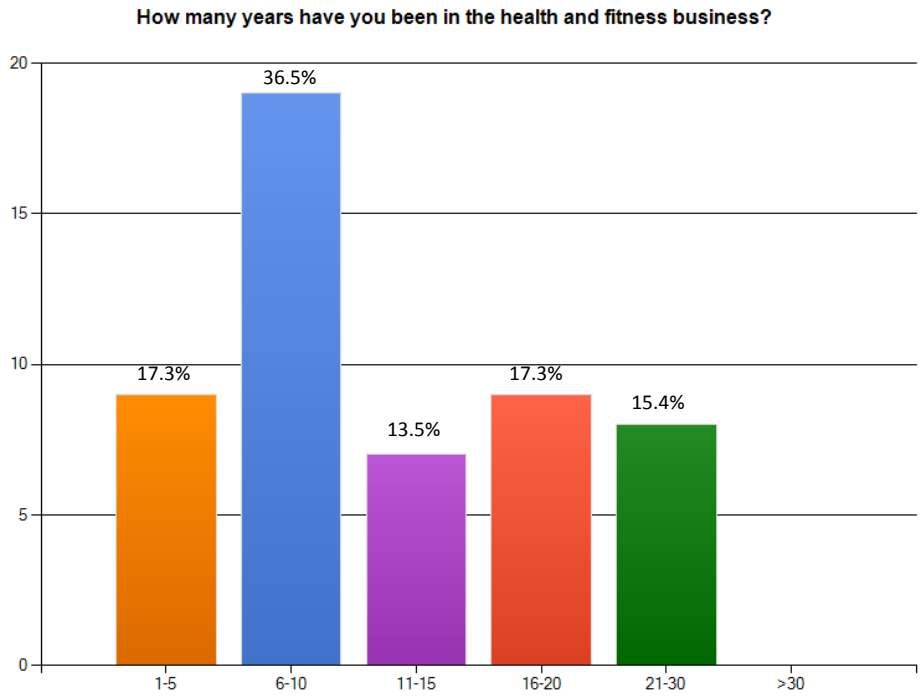

Figure 10.e. Years health/fitness facility managers spent in the health/fitness business

3) What is the status of risk management practices in health/fitness facilities?

As illustrated in Table 5, the results of the descriptive statistics indicated that health/fitness facilities showed adherence to the risk management practices related to the 'Programs' (mean=4.341±.666) scale the most. The second most implemented risk management practices were related to the 'Insurance' (mean=4.288±.887) scale that was followed by risk management practices related to the 'Maintenance' (mean=4.169±.679) scale. Risk management practices that health/fitness facilities showed the lowest adherence was related to the 'Emergency Plans' (mean=3.5±.616) scale that was followed by the 'Construction/Design' (mean=3.889±.607) and the 'Staff' (mean=3.956±.712) scale. On an item by item basis, the managers of the health/fitness facilities showed the highest adherence to the item 'All participants are required to sign a waiver form' (mean=4.67±.474).

Table 5. Descriptive statistics of the HFRMQ scales

HFRMQ Scales	N	M	SE	SD
Inspections	52	4.011	.127	.921
Maintenance	52	4.169	.094	.679
Programs	52	4.341	.092	.666
Emergency Plans	52	3.500	.085	.616
Construction/ Design	52	3.889	.084	.607
Participant/ Membership Forms	52	4.012	.071	.512
Staff	18	3.956	.167	.712
Insurance	52	4.288	.123	.887

Note: The HFRMQ items were answered on a 5 point Likert scale from 'Strongly Disagree'to 'Strongly Agree'. The closer the mean value to 5, the stronger is the agreement with the particular item. N= Number; M= Mean; SE=Standard error of mean, SD= Standard deviation.

A lack of process related risk management practices were stressed in the 'Emergency Plans', 'Staff/Personnel' and 'Inspections'. For example, under the 'Emergency Plans' scale, although 36.5% of the managers 'strongly agreed' and

42.3% of the managers 'agreed' with the item "My facility has a written emergency plan" (mean=4.04±.989) (Appendix D), the majority of the managers disagreed with the emergency drills, as recommended by AHA/ACSM (Balady et al., 1998) for health/fitness facilities. Such that only 9.6% of the health/fitness managers 'strongly agreed' with the item 'Our emergency response system is physically rehearsed by all staff at least four times per year" (mean=2.63±1.205) and only 5.8% of the health/fitness facility managers 'strongly agreed' with the item 'Our emergency plan is revised at least once a month' (mean=2.54±.999)

Under the 'Staff/Personnel' scale, 53.8% of the managers 'strongly agreed' with the item "My fitness professionals hold current accredited certifications" (mean=4.44±616). However, only 23.1% of the managers 'strongly agreed' with the item "My facility provides in service training for revision of emergency action plans" (mean=3.56 ± 1.149) and only 30.8% of the managers 'strongly agreed' with the item "My facility provides in service training for employees to keep up with current industry standards and guidelines" (mean=3.78±1.309).

Under the 'Inspections'scale, majority of the managers 'strongly agreed' (51.9%) with the item 'My facility regularly conducts inspections on the premises' (mean=4.25±1.027). However, only 36.5% of the managers 'strongly agreed' with the item 'My facility keeps inspection reports on file' (mean=3.63±1.314) while 11.5% of the managers were 'not sure'.

4) What is the status of legal liability claims in health/fitness facilities in Australia?

In order to understand the status of the legal liability claims in health/fitness facilities the managers were asked if their health/fitness facility had ever been sued by a participant who sustained injuries at their facility. In response to this item, most of the health/fitness facility managers reported that their facility had not been sued (80.8%, n=42), while 19.2% (n=10) reported that their facility had been sued by a participant who sustained injuries at their facility (Figure 11.a).

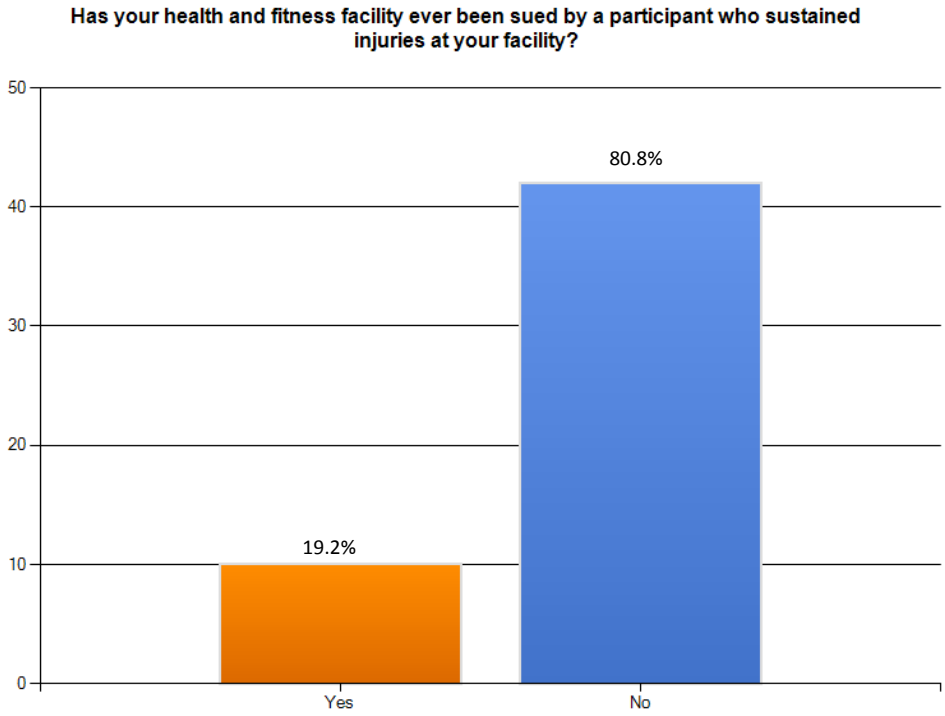

Figure 11.a. Legal liability status of health/fitness facilities

Among the health/fitness facility managers who reported that their facility had been sued by a participant (n=10), 20% (n=2) were sued once, 20% (n=2) were sued three times, 50% (n=5) were sued two times, and 10% (n=1) were sued 5 times indicating a total of 23 lawsuits (Figure 11.b).

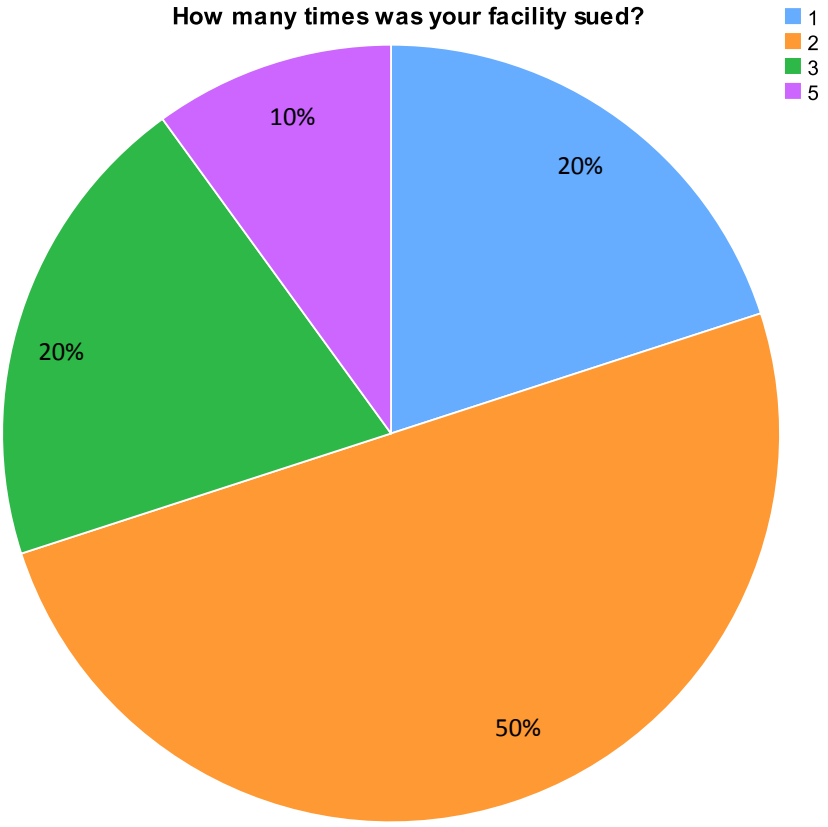

Figure 11.b. Number of times health/fitness facilities were sued

When these health/fitness facility managers were asked how many of these lawsuits were settled out of court, 20% (n=2) reported one, 40% (n=4) reported two, 10% (n=1) reported three, 20% (n=2) reported four, and 10% (n=1) reported 6 out of court settlements indicating a total of 27 out of court settlements (Figure 11.c). According to the data, of the 23 lawsuits there was only one legal claim that went to trial without settlement, whereas 22 of the legal claims were settled after court action started. Some of the managers reported more out of court settlements than the actual

number of lawsuits suggesting that there were 5 legal claims that were settled before court action started. On the whole, there were a total of 28 lawsuits against 19.2% (n=10) of the health/fitness facilities.

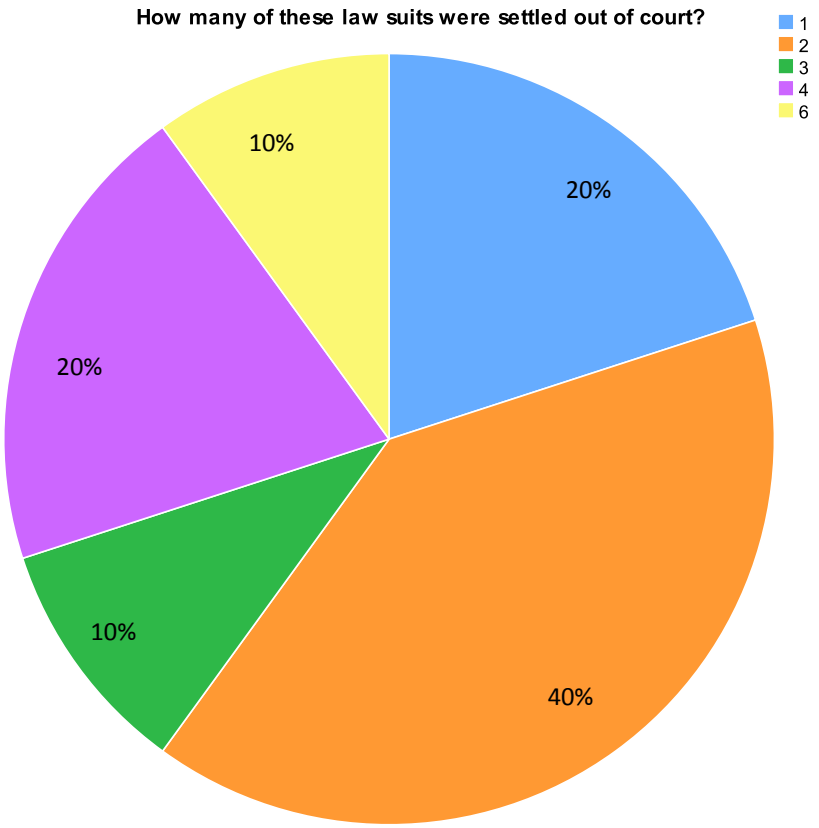

Figure 11.c. Number of out of court settlements

5) Do managerial demographics affect risk management practices of health/fitness facilities?

The results of Kruskal-Wallis independent samples test showed that risk management practices related to Staff/Personnel showed a significant difference ($H(4) = 10.380$, $p=.034$) among health/fitness facilities according to the years of experience the manager had in the industry with a mean rank of 2.50 for managers with 1-5 years of

experience, 4.50 for managers with 21-30 years of experience, 8.88 for managers with 11-15 years of experience, 11.83 for managers with 16-20 years of experience and 13.58 for managers with 6-10 years of experience (Table 6).

Table 6. Effect of years in the present position on risk management practices

Risk Management Practice	Chi-square*	df	*p*
Inspections	1.334	4	.856
Maintenance	2.713	4	.607
Programs	7.192	4	.126
Emergency Plans	2.310	4	.679
Construction/Design	3.307	4	.508
Participant/Membership Forms	5.602	4	.231
Insurance	5.338	4	.254
Staff/Personnel	10.380	4	.034**

Note:*Kruskal-Wallis H test, **Significance level $p \leq .05$, Grouping variable: How many years have you been in the health and fitness business?

6) Does registration with Fitness Australia affect risk management practices of health/fitness facilities?

H1: Registered health/fitness facilities adhere to risk management practices more than unregistered health/fitness facilities.

The results of Mann-Whitney U independent samples test showed that registered and non-registered health/fitness facilities with Fitness Australia showed a significant difference ($p \leq .05$) only in risk management practices related to the 'Insurance' ($U= 104$, $p= .02$) scale with a mean rank of 28.5 for registered and 16.56 for non-registered health/fitness facilities (Table 7). Therefore the null hypothesis 'there is no difference between registered and non-registered health/fitness facilitiesin adherence to risk management practices' was rejected.

Table 7. Effect of registration status on risk management practices

Risk Management Practice	U*	Z	*p***
Inspections	190.00	-.085	.932
Maintenance	132.00	-1.503	.133
Programs	125.50	-1.673	.094
Emergency Plans	132.50	-1.480	.139
Construction/Design	142.00	-1.260	.208
Participant/Membership Forms	179.00	-.352	.725
Insurance	104.00	-2.314	.021**
Staff/Personnel	7.500	-1.792	.073

Note:*Mann-Whitney U test, **Significance level $p \leq .05$, Grouping variable: Is your institution registered to Fitness Australia?

7) Is there a relationship between registration to Fitness Australia and the number of incidents or accidents/injuries that occurred in health/fitness facilities in the last twelve months?

The results of Mann-Whitney U independent samples test showed no significant difference ($p \leq .05$) in the number of incidents or accidents/injuries that occurred in registered and non-registered health/fitness facilities (U= 169, p= .539) only in terms of risk management practices related to insurance with a mean rank of 27.07 for registered and 23.73 for non-registered health/fitness facilities (Table 8).

Table 8. Difference in the number of injuries according to the registration status of health/fitness facilities

Item	U value*	Z	*p***
How many incidents or accidents/injuries occurred in your facility in the last twelve months?	169.00	-.615	.539

Note:*Mann-Whitney U test, **Significance level $p \leq .05$, Grouping variable: Is your institution registered to Fitness Australia?

8) What are the sources of risks in health/fitness facilities?

In order to understand the sources of risks in health/fitness facilities, first the most popular fitness services offered by the health/fitness facilities were analysed. Then, the number of injuries in the last twelve months and the areas or activities where these injuries occurred most were analysed. Further, the type of injuries that occurred most was compared to the type of injuries that involved the lawsuits brought against the health/fitness facilities.

The results of descriptive statistics showed that the most popular three fitness services offered by health/fitness facilities were weight training with fitness machines (98.1%), cardiovascular training (i.e. treadmills, elliptical) (98.1%) and free weight training (92.3%) (Figure 12.a).

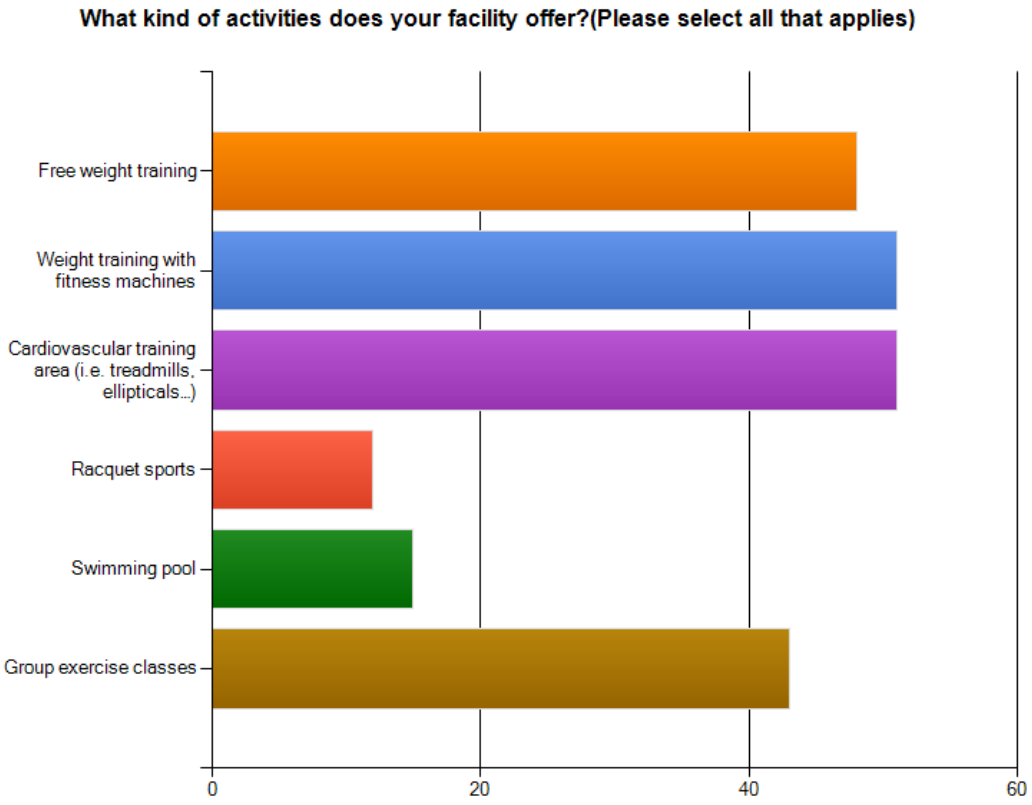

Figure 12.a. Types of activities offered by health/fitness facilities

There were at least 1-3 incidents or accidents/injuries that occurred in 34.6% of health/fitness facilities in 2009-2010 (Figure 12.b).

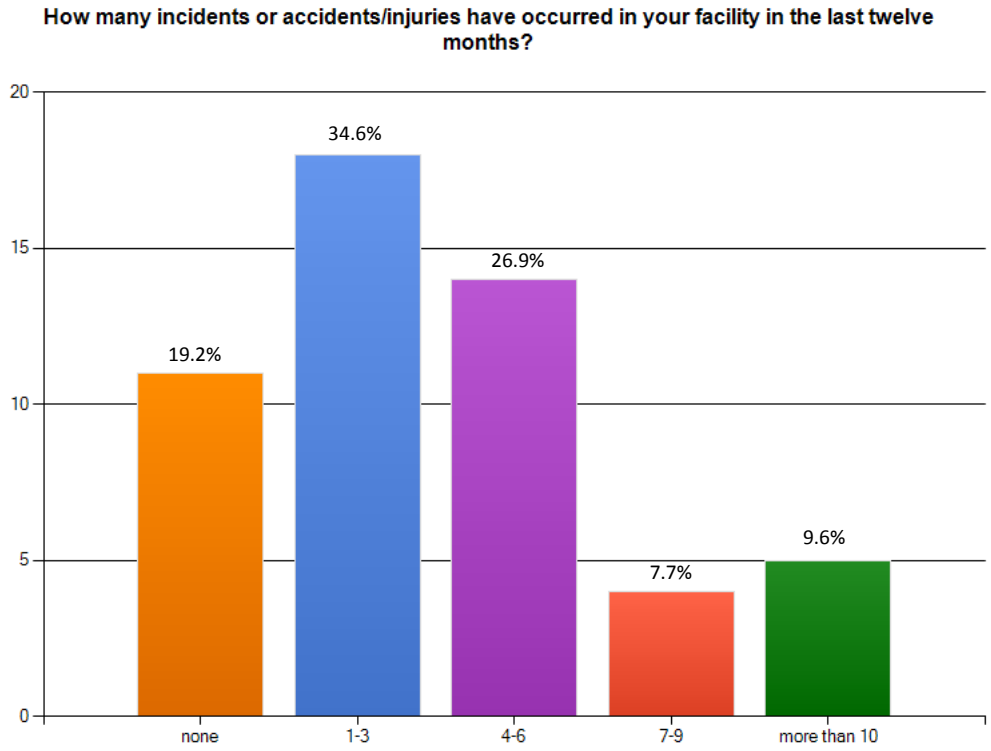

Figure 12.b. Number of incidents or accidents/injuries occurred in health/fitness facilities in 2009-2010

When compared to the 2008-2009 figures, in 46.2% of health/fitness facilities the number of injuries stayed the same (Figure 12.c).

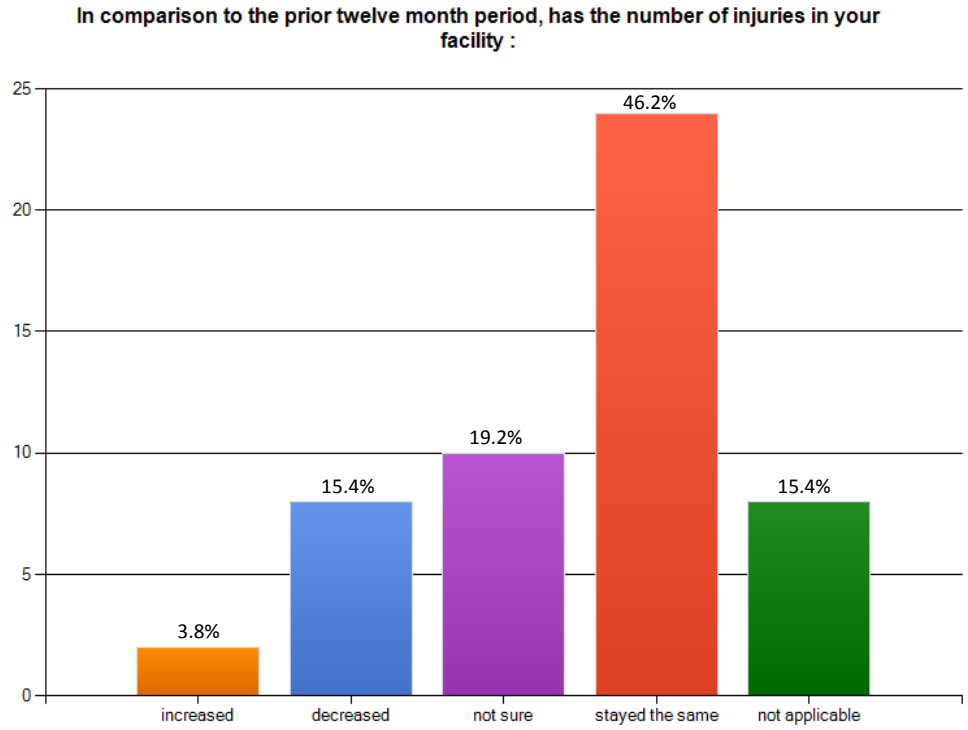

Figure 12.c. Status of number of injuries in health/fitness facilities in comparison to 2008-2009

The area that had the highest number of reported accidents/injuries in health/fitness facilities was the weight training area (40.4%). This was followed by group exercises (21.2%) and cardio (11.5%). Some other sources of injuries that were

reported by the health/fitness facility managers were ‘slippery tiles leading to the facility’ (1.9%), ‘basketball area’ (1.9%), ‘swimming pool’ (5.7%) and ‘personal training’ (3.8%) (Figure 12.d).

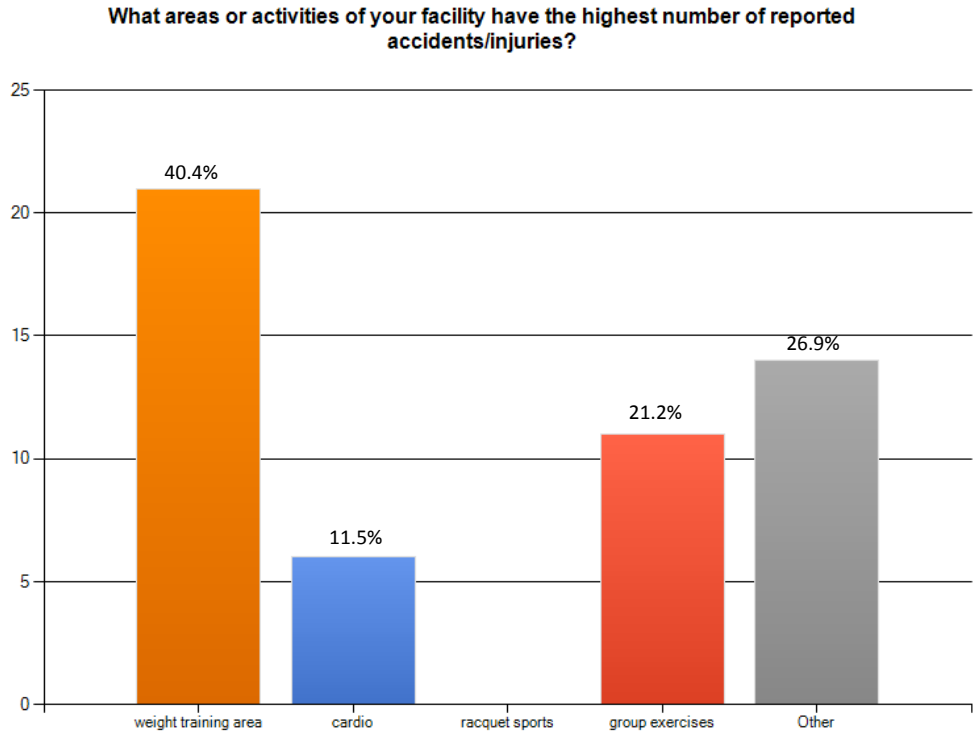

Figure 12.d. Areas in health/fitness facilities with the highest number of injuries

The health/fitness facility managers reported that sprains/strains (84.6%) were the most common type of injuries that occurred in their facilities. A health/fitness facility manager reported an incidence of seizure (1.9%) that occurred in their facility.

Other types of injuries that occurred in health/fitness facilities included ‘slips, trips and falls’ (1.9%), ‘sprains/strains, grazes when people fall of the treadmill’ (1.9%), ‘bruises and blisters’ (1.9%), and ‘hip fracture’ due to falling of an overbalanced elderly man during personal training (1.9%) (Figure 12.e).

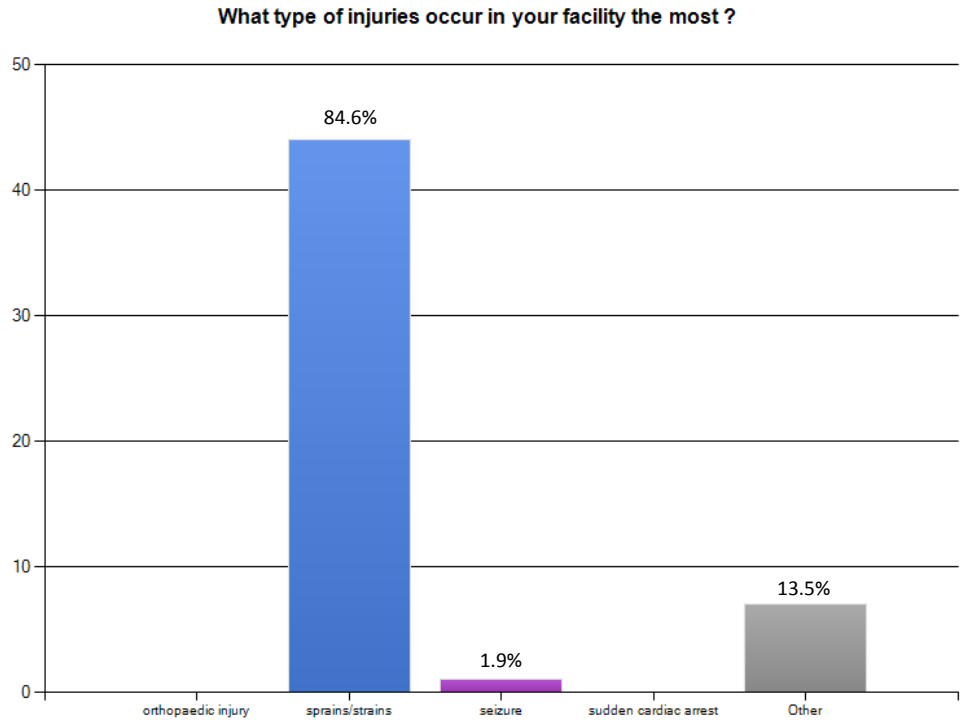

Figure 12.e. Types of injuries that occur in health/fitness facilities the most

Despite the fact that the health/fitness facility managers did not report orthopaedic injuries among the injuries that occurred most, these types of injuries involved staggeringly 50% of the lawsuits brought against health/fitness facilities. Sprains/strains (50%) were also among the major types of injuries that involved the lawsuits brought against health/fitness facilities (Figure 12.f). One of the health/fitness facilities reported ‘a back injury’ that was allegedly caused by a ‘back-supported leg machine exercise’ that was prescribed by the health/fitness facility.

Over all, these figures suggest that weight training areas and sprains/strains inherent to weight training can be the most common sources of risks in health/fitness facilities.

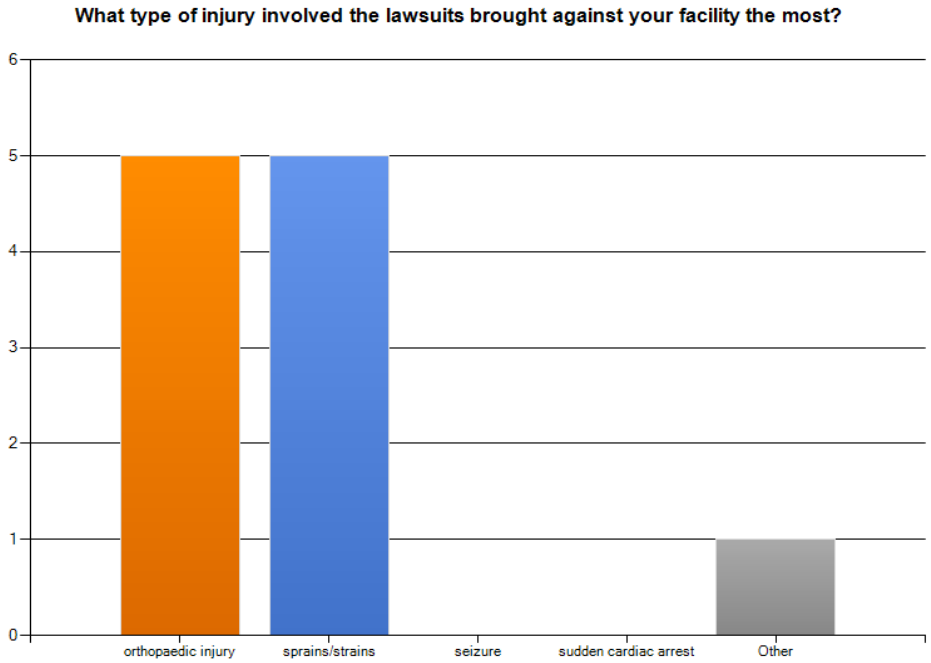

Figure 12.f. Types of injuries involved the lawsuits brought against health/fitness facilities

H6: Health/fitness facilities with more number of injuries have more number of legal liability cases.

The results of Kruskal-Wallis independent samples test showed that the number of injuries health/fitness facilities have does not affect (p=.337) the number of legal claims these facilities have (Table 9). Therefore, the null hypothesis 'the number of injuries sustained in health/fitness facilities has no effect on the number of legal claims' was retained.

Table 9. Number of injuries and number of legal liability cases

	Chi-square*	df	*P***
How many incidents or accidents/injuries have occurred in your facility in the last twelve months?	3.378	3	.337

Note: *Kruskal-Wallis H test, **Significance level $p \leq .05$, Grouping variable: How many times was your facility sued?

9) What is the possibility of injuries occurring according to the type of health/fitness facilities?

The results of Mann-Whitney U independent samples test showed no significant difference ($p \leq .05$) in the number of incidents or accidents/injuries that occurred in public and private health/fitness facilities (U= 310.5, p= .968) (Table 10).

Table 10. Differences in number of injuries according to the type of facilities

Item	U value*	Z	*p***
How many incidents or accidents/injuries occurred in your facility in the last twelve months?	310.500	-.040	.968

Note:*Mann-Whitney U test, **Significance level p≤ .05, Grouping variable: What type of an institution is your facility?

10) What is the possibility of injuries occurring according to the size of health/fitness facilities?

H3: Larger health/fitness facilities have more accidents/ injuries.

When health/fitness facilities were grouped according to size (m^2) the results of Kruskal-Wallis independent samples test showed that number of injuries occurred in health/fitness facilities showed a significant difference (H(5) = 1.334, p= .015) with a mean rank of 45.50 for facilities >9000m^2, 34.75 for facilities 3100-6000m^2, 31.53 for facilities 1000-3000m^2, 20.50 for facilities 6100-9000m^2, 19.89 for 500-990m^2 and

19.67 for facilities <500m^2 (Table 11). Therefore the null hypothesis 'the size (m^2) of health/fitness facilities does not affect the number of accidents/ injuries sustained in health/fitness facilities' was rejected.

Table 11. Differences in number of injuries according to the size of facilities

Item	Chi-square*	df	*p*
How many accidents or accidents/injuries occurred in your facility in the last twelve months?	1.334	5	.015**

Note:*Kruskal-Wallis H test, **Significance level $p \leq .05$, Grouping variable: What is the size of your facility?

11) What is the possibility of injuries occurring according to the membership and daily membership number of the health/fitness facilities?

H4: Health/fitness facilities with more members have more accidents/ injuries.

Chi-square test of independence was conducted to analyse whether there was a significant relationship between the member populations of health/fitness facilities and the number of injuries sustained in health/fitness facilities. Before conducting the analysis the data of member populations were grouped and coded as categorical variables. As can be seen from the frequencies crosstabulated in Table 12, there is no significant relationship between the average member population of health/fitness facilities and the number of injuries that occurred in health/fitness facilities in the last twelve months $\chi^2(24, N = 52)= 29.21$, $p= .212$. Therefore, the null hypothesis "the number of members of health/fitness facilities does not affect the number of accidents/ injuries sustained in health/fitness facilities" was retained.

Table 12. Crosstabulation of number of member population and number of injuries in health/fitness facilities

What is your average member population?	How many incidents or accidents/injuries have occurred in your facility in the last twelve months?				
	None	1-3	4-6	7-9	>10
Not sure	0	3	0	0	0
<100	3	3	1	0	0
101-500	3	6	5	0	0
501-1000	3	1	4	1	3
1000-1500	1	2	0	1	0
1500-2000	1	2	0	1	1
>2000	0	1	4	1	1

H5: Health/fitness facilities with more daily members have more accidents/ injuries.

Chi-square test of independence was conducted to analyse whether there was a significant relationship between the daily member population and the number of injuries sustained in health/fitness facilities. Before conducting the analysis the daily member populations of health/fitness facilities were grouped and coded as categorical variables. As can be seen from the frequencies crosstabulated in Table 13, there was a significant relationship between the daily average member population of health/fitness facilities and the number of injuries that these facilities had in the last twelve months, $\chi^2(24, N = 52) = 36.97$, $p = .044$. Therefore, the null hypothesis "the number of daily members of health/fitness facilities does not affect the number of accidents/ injuries sustained in health/fitness facilities" was rejected.

Table 13. Crosstabulation of number of daily member population and number of injuries in health/fitness facilities

What is your daily average member population?	How many incidents or accidents/injuries have occurred in your facility in the last twelve months?				
	None	1-3	4-6	7-9	>10
Not sure	1	2	0	1	0
<100	7	7	5	0	0
101-500	3	7	6	2	2
501-1000	0	0	2	1	1
1000-1500	0	1	0	0	0
1500-2000	0	0	0	0	2
>2000	0	1	1	0	0

12) Is there a relationship between the number of injuries and adherence to risk management practices?

The results of Kruskal-Wallis independent samples test showed no significant difference ($p \leq .05$) in risk management practices of health/fitness facilities and the number of injuries that occurred in those facilities (Table 14).

Table 14. Risk management practices according to the number of injuries

Risk Management Practice	Chi-square*	df	*P***
Inspections	6.113	4	.191
Maintenance	4.770	4	.312
Programs	.753	4	.945
Emergency Plans	5.862	4	.210
Construction/Design	2.677	4	.613
Participant/Membership Forms	.467	4	.977
Insurance	.736	4	.947
Staff/Personnel	6.205	4	.184

Note:*Kruskal-Wallis H test, **Significance level $p \leq .05$, Grouping variable: How many incidents or accidents/injuries occurred in your facility in the last twelve months?

13) **Does allocation of resources for a risk management plan affect adherence to risk management practices in the health/fitness facilities?**

H2: Allocation of financial resources increases risk management practices.

The results of Mann-Whitney U independent samples test showed that health/fitness facilities who had a line item budget showed a significant difference ($p \leq .05$) in risk management practices related to Maintenance (U= 123, p=.000) with a mean rank of 36.53 for health/fitness facilities with a line item budget and 20.73 for health/fitness facilities without a line item budget for their risk management practices (Table 14). Other risk management practices that showed a significant difference were Emergency Plans (U=181, p=.012) with a mean rank of 33.47 and 22.48, Construction and Design (U=161, p=.003) with a mean rank of 34.53 and 21.88, Participant Membership Forms (U=178, p=.010) with a mean rank of 33.63 and 22.39, and Staff (U=13, p=.020) with a mean rank of 13.14 and 7.18 for health/fitness facilities with and without a line item budget for their risk management practices respectively (Table 15). Therefore, the null hypothesis 'Allocation of financial resources does not affect adherence to risk management practices' was rejected.

Table 15. Effect of having a line item budget on risk management practices

Risk Management Practice	U*	Z	*p***
Inspections	264.50	-.940	.347
Maintenance	123.00	-3.658	.000**
Programs	285.50	-.541	.588
Emergency Plans	181.00	-2.525	.012**
Construction/Design	161.00	-2.930	.003**
Participant/Membership Forms	178.00	-.2.583	.010
Insurance	274.00	-.802	.422
Staff/Personnel	13.00	-1.792	.020**

Note:*Mann-Whitney U test, **Significance level $p \leq .05$, Grouping variable: Do you have a line item budget for your risk management practices?

14) Does allocation of the amount of resources (% budget) for a risk management plan affect adherence to risk management practices in health/fitness facilities?

Kruskal-Wallis independent samples test revealed that there is no significant difference ($p \leq .05$) in risk management practices of health/fitness facilities according to the amount of budget allocated for risk management practices (Table 16). However, it is worth mentioning that health and fitness facilities who allocated 3-5% of their total budget ranked higher in the implementation of all risk management practices than health/fitness facilities who allocated 1-2% of their total budget.

Table 16. Effect of budget allocated on adherence to risk management practices

Risk Management Practice	Chi-square*	df	*P***
Inspections	1.355	2	.508
Maintenance	1.190	2	.552
Programs	3.219	2	.200
Emergency Plans	3.222	2	.200
Construction/Design	2.440	2	.295
Participant/Membership Forms	2.458	2	.293
Insurance	.406	2	.816
Staff/Personnel	2.889	2	.236

Note:*Kruskal-Wallis H test, **Significance level $p \leq .05$, Grouping variable: What percentage is this of your total budget?

15) Is there a significant difference in risk management practices of health/fitness facilities that have and don`t have a risk management plan?

H7: Having a risk management plan increases adherence to risk management practices in health/fitness facilities.

The results of Mann-Whitney U independent samples test showed that health/fitness facilities who had a risk management plan showed a significant difference ($p \leq .05$) in

terms of risk management practices related to Inspections (U= 206.5, *p*= .040) with a mean rank of 29.74 for health/fitness facilities that have a risk management plan and 20.87 for health/fitness facilities that do not have a risk management plan (Table 17). Other risk management practices that showed a significant difference were Maintenance (U=118.5, *p*=.000) with a mean rank of 32.41 and 16.24, Emergency Plans (U=147, *p*=.002) with a mean rank of 31.55 and 17.74, Construction and Design (U=194, *p*=.022) with a mean rank of 30.12 and 20.21, and Participant Membership Forms (U=201, *p*=.032) with a mean rank of 29.91 and 20.58 for health/fitness facilities that have and do not have a risk management plan respectively. Therefore, the null hypothesis 'having a risk management plan does not affect adherence to risk management practices in health/fitness facilities' was rejected.

Table 17. Effect of having a risk management plan on risk management practices

Risk Management Practice	**U ***	**Z**	***p***
Inspections	206.50	-2.052	.040**
Maintenance	118.50	-3.745	.000**
Programs	247.00	-1.285	.199
Emergency Plans	147.00	-3.173	.002**
Construction/Design	194.00	-2.296	.022**
Participant/Membership Forms	201.00	-2.144	.032**
Insurance	242.00	-1.453	.146
Staff/Personnel	11.00	-1.820	.069

Note:*Mann-Whitney U test; **Significance level p≤ .05; Grouping variable: Does your health and fitness facility have a risk management plan?

However, the overall mean values of the risk management practices implemented by health/fitness facilities that had a risk management plan did not show a very close proximity to 5 either. This was most distinct in the area of'Emergency Plans' (mean=3.709±560) (Table 18).

Table 18. Risk management practices of health/fitness facilities that have a risk management plan and do not have a risk management plan

		Ins	Main	Prog	EP	CD	PMF	Insur	S
Yes*	M	4.181	4.424	4.439	3.709	4.037	4.145	4.409	4.127
	SD	.923	.609	.602	.560	.555	.459	.824	.665
	SE	.160	.106	.104	.097	.096	.079	.143	.177
	N	33	33	33	33	33	33	33	14
No*	M	3.715	3.726	4.171	3.136	3.631	3.782	4.078	3.361
	SD	.862	.566	.750	.546	.620	.530	.975	.590
	SE	.197	.129	.172	.125	.142	.121	.223	.295
	N	19	19	19	19	19	19	19	4
Total	M	4.011	4.169	4.341	3.500	3.889	4.012	4.288	3.956
	SD	.921	.679	.666	.616	.607	.512	.887	.712
	S E	.127	.094	.092	.085	.084	.071	.123	.167
	N	52	52	52	52	52	52	52	18

Note:N=Number, M=Mean, SD= Standard deviation, SE=Standard error of mean; Ins=Inspections; Main=Maintenance; Prog=Programs; EP=Emergency Plans, CD=Construction and Design; PMF=Participant/Membership Forms; Insur=Insurance; S= Staff; *Grouping variable: Does your health and fitness facility have a risk management plan? The closer the mean value to 5, to stronger is the agreement with the particular item.

H_O8: There is no difference in adherence to risk management practices between health/fitness facilities that have legal liability claims and do not have legal liability claims.

The results of Mann-Whitney U independent samples test showed no significant difference ($p \leq .05$) in adherence to risk management practices between health/fitness facilities that had legal liability claims (n=10) and did not have legal liability claims (n=42) (Table 19). Therefore, the null hypothesis 'there is no difference in adherence to risk management practices between health/fitness facilities that have legal liability claims and do not have legal liability claims' was retained.

However, it is worth mentioning that the health/fitness facilities that had legal liability claims adhered to the risk management practices less than the health/fitness facilities that did not have legal liability claims in regard to 'Inspections' (U=207.5,*p*=.953) with a mean rank of 26.25 and 26.56, 'Emergency Plans' (U=206.5, *p*=.926) with a mean rank of 26.10 and 26.60, 'Construction and Design' (U=198, *p*=.778) with a mean rank of 25.30 and 26.60, and 'Participant Membership Forms' (U=171.5, *p*=.370) with a mean rank of 22.65 and 27.42, respectively.

Table 19. Implementation of risk management practices across sued and non-sued health/fitness facilities

Risk Management Practice	U value*	Z	*P***
Inspections	207.500	-.059	.953
Maintenance	189.500	-.481	.631
Programs	189.500	-.496	.620
Emergency Plans	206.000	-.093	.926
Construction/Design	253.000	-.282	.778
Participant/Membership Forms	226.500	-.897	.370
Insurance	220.500	-1.105	.269
Staff/Personnel	135.500	-.896	.370

Note: *Mann-Whitney U test, **Significance level *p*≤.05, Grouping variable: Has your health and fitness facility ever been sued by a participant who sustained injuries at your facility?

16) Do health/fitness facilities regularly revise and rehearse their emergency action plans?

The results of descriptive statistics indicated that 36.5% of health/fitness facility managers 'strongly' agreed with the item 'My facility has a written emergency plan' (mean=4.04±.989). However, only 5.8% of the health/fitness facility managers 'strongly agreed' with the item 'Our emergency plan is revised at least once a month' (mean=2.54 ± .999). The results also revealed that only 9.6% of the health/fitness facility managers 'strongly agreed' and 19.2% 'agreed' with the item 'Our emergency

response system is physically rehearsed by all staff at least four times per year' (mean=2.63 ± 1.205) (Table 20).

Table 20. Risk management practices related to reviews and regular audits

Risk Management Practice	N	M	SD	SE
Our emergency plan is revised at least once a month.	52	2.54	.999	.139
Our emergency response system is physicallyrehearsed by all staff at least four times per year.	52	2.63	1.205	.167

Note:N=Number, M=Mean, SD= Standard deviation, SE=Standard error of mean.

17) Do health/fitness facilities provide regular in-service training and require current certification of their health/fitness professionals?

The results of the descriptive statistics showed that only 23.1% of the health/fitness facility managers 'strongly agreed' and 38.5% 'agreed' with the item 'My facility provides in-service training for revision of emergency action plans' (mean=3.56 ± 1.162) (Table 21). Similarly, only 30.8% of the health/fitness facility managers reported that they 'strongly agreed' and 34.6% 'agreed' with the item 'My facility provides in-service training for employees to keep up with current industry standards and guidelines'.

Surprisingly, while most of the health/fitness facility managers 'strongly agreed' (55.8%) with the item 'Our fitness professionals and staff have current First Aid/CPR certificate and training' (mean=4.46 ± 727) only 22.2% of the managers 'strongly agreed' with the item 'Our fitness professionals and staff who are recruited to use AED in case of an emergency situation hold current AED training and certificate' (mean=3.61±.916) (Table 21).

Table 21. Risk management practices related to in-service training and current certification of health/fitness professionals

Risk Management Practice	N	M	SD	SE
My facility provides in-service training for revision of emergency action plans.	52	3.56	1.162	.161
My facility provides in-service training for employees to keep up with current industry standards and guidelines.	52	3.67	1.216	.169
Our fitness professionals and staff have current First Aid/CPR certificate and training.	52	4.46	.727	.101
Our fitness professionals and staff who are recruited to use AED in case of an emergency situation hold current AED training and certificate.	18	3.61	.916	.216

Note: N=Number, M=Mean, SD= Standard deviation, SE=Standard error of mean.

18) Are waivers used and if so how are they used in risk management of health/fitness facilities?

When health/fitness facility managers were asked if 'All participants are required to sign a waiver form', 67.3% of the managers 'strongly agreed' and 32.7% 'agreed' (mean=4.67 ± .474) with the item (Table 22). However, the item 'Waiver forms are updated when a member starts participating in a new type of activity' (mean=2.96 ± 1.236) was not recognized as very important with 48.1% of the managers 'disagreeing'. When the health/fitness facility managers were asked if 'Waiver forms are updated when a membership is renewed' (mean=3.75 ± 1.219) 32.7% of the managers 'strongly agreed' and 34.6% 'agreed', while 13.5% of the managers 'disagreed' with the item.

Use of parental waivers were common among health/fitness facilities as 32% of the managers 'strongly agreed' and 34.6% 'agreed' with the item 'If the participant is a minor, a guardian or parent of the minor and minor sign the parental waiver form prior to membership or participation' (mean=4.58 ± .572). Over all, approximately 39% of the health/fitness facility managers 'strongly agreed' and 32.7% 'agreed'that

‘Legal advice was obtained while developing contracts such as waiver forms and membership forms’ (mean=4.02 ± .980).

Table 22. Use of waivers in health/fitness facilities

Risk Management Practice	N	M	SD	SE
All participants are required to sign a waiver form.	52	4.67	.474	.066
Waiver forms are updated when new fitness equipment is installed in the facility.	52	3.04	1.328	184
Waiver forms are updated when a membership is renewed.	52	3.75	1.219	.169
Waiver forms are updated when a member starts participating in a new type of activity.	52	2.96	1.236	.171
If the participant is a minor, a guardian or parent of the minor and minor sign the parental waiver form prior to membership or participation.	52	4.58	.572	.079
Legal advice was obtained while developing contracts such as waiver forms and membership forms.	52	4.02	.980	.136

Note:N=Number, M=Mean, SD= Standard deviation, SE=Standard error of mean.

19) What are the most important risk management practices for the health/fitness facility managers?

At the end of the questionnaire, the health/fitness facility managers were asked to rate the importance of the specified risk management practices on a five point Likert scale from ‘Unimportant’ to ‘Very Important’. The most important risk management practices for health/fitness facility managers were ‘Having an insurance’ (mean=4.87 ± .048), ‘Having waiver forms signed by participants’ (mean=4.69±.506) and ‘Having pre-activity screening procedures’ (mean=4.58±.572) (Table 23).

The least important risk management practicesfor health/fitness facility managers were ‘Having an AED installed in the facility’ (mean=3.42 ± 1.023), ‘Having a written emergency plan’ (mean=4.23 ± .877) and ‘Providing orientation programs’ (mean=4.38 ± .771) (Table 23).

Table 23. Rating of risk management practices by the health/fitness facility managers

Risk Management Practice	N	M	SD	SE
Having a risk management plan	52	4.46	.727	.101
Conducting regular inspections on the premises	52	4.56	.539	.075
Having a preventative maintenance program	52	4.52	.610	.085
Providing orientation programs	52	4.38	.771	.107
Having an AED installed in the facility	52	3.42	1.073	.149
Having a written emergency plan	52	4.23	.877	.122
Having pre-activity screening procedures	52	4.58	.572	.079
Having waiver forms signed by the participants	52	4.69	.506	.070
Having insurance	52	4.87	.048	.345
Conducting record keeping	52	4.52	.089	.641

Note: N=Number, M=Mean, SD= Standard deviation, SE=Standard error of mean.

CHAPTER V

DISCUSSION AND CONCLUSION

Drawn from the heightened need in the literature to understand implementation of risk management practices in the health/fitness facilities in Australia, the main purpose of this study was to investigate risk management practices of the health/fitness facilities in Queensland. For this purpose, an 81-item questionnaire was developed and pilot tested by the researcher and distributed to all health/fitness facilities in Queensland whose contact information and e-mail addresses were gathered using Australia's online gym directories and yellow pages. At the end of the data collection process, a twenty per cent return rate was achieved.

This Chapter first provides a summary of the major findings of this study. This is followed by the discussion of the most important results about implementation of risk management practices by health/fitness facilities to minimise the risk of legal liability and conclusions that draw practical implications for future research.

1. Summary of the Major Findings

- Of the 262 health/fitness facility managers in Queensland that had received the Health/Fitness Industry Risk Management Questionnaire (HFRMQ), 52 health/fitness managers completed and returned the questionnaires (response rate 20%).
- Approximately 35% of the managers that participated in the study were also owners of the health/fitness facilities.
- The gender of health/fitness facility managers was evenly distributed with females (51.9%) slightly more than males (48.1%).
- The largest percentage of the health/fitness facility managers were aged between 35-44 years old (32.7%).
- Approximately 60% of the managers had spent 1-5 years in their current position with 36.5% of the managers being in the business for at least 6-10 years.
- The longer health/fitness facility managers had experience in the fitness industry (6-10 years), the more they adhered to risk management practices related to staff/personnel.
- The health/fitness facilities that participated in this study were either public (48.1%) or private (48.1%) institutions.
- The size of the majority of health/fitness facilities (84.6%) ranged between <500 m^2 to 1000-3000 m^2.
- The daily average member population of most of the health/fitness facilities ranged between >100 - 500 (75%) while the average member population of most health/fitness facilities ranged between 101 - 1000 (50%).
- Most of the health/fitness managers (82.7%) reported that their health/fitness facility was registered to Fitness Australia.
- 53.8% of health/fitness facility managers stated that their fitness professionals were registered to Fitness Australia.

- Most of the health/fitness facility managers (53.8% strongly agree, 38.5% agree) reported that their fitness professionals held current accredited certifications.
- Most of the health/fitness facility managers (55.8% strongly agree, 36.7% agree) reported that their facility complied with the *Fitness Industry Code of Practice*.
- The most popular services offered by health/fitness facilities were weight training with fitness machines (98.1%), cardiovascular training equipment (98.1%) and free weight training (92.3%).
- 34.6% of health/fitness facilities had at least 1-3 accidents/injuries that occurred in the last twelve months.
- In 46.2% of health/fitness facilities the number of injuries was consistent with the prior twelve month period.
- The area that had the highest number of reported accidents/injuries was the weight training area in 40.4% of health/fitness facilities, followed by group exercises in 21.2% and cardio in 11.5% of health/fitness facilities.
- Health/fitness facility managers reported sprains/strains (84.6%) as the most common type of injuries that occurred in their facilities.
- Orthopaedic injuries (50%) and sprains/strains (50%) were the major types of injuries that involved the lawsuits brought against health/fitness facilities.
- The risk management practices with the lowest adherence were related to 'emergency plans', 'construction/design', and 'staff'.
- Allocation of financial resources affected adherence to risk management practices related to 'maintenance', 'construction/design', 'participant membership forms', 'emergency plans' and 'staff' the most.
- 19.2% (n=10) of the health/fitness facility managers reported that their facility had been sued by a participant who sustained injuries at their facility.
- There were reportedly 23 personal injury lawsuits and 27 out of court settlements that overlapped 22 of the lawsuits. Five of the lawsuits were settled before court action started.

- On the whole, there were a total of 28 lawsuits reported by the health/fitness facility managers.
- Health/fitness facilities with personal injury lawsuits showed lower adherence to risk management practices related to ‘participant membership forms’, ‘construction /design’, ‘emergency plans’, and ‘inspections’.
- Overall, the most important risk management practices for the health/fitness facility managers in Queensland were reported as insurance and waivers.

2. Discussion

The Australian health/fitness industry is an important contributor to the national preventative public health strategy against detrimental effects of sedentary living such as obesity and associated health risk factors. With the public health policy emphasizing increased participation in exercise by the older and high risk individuals, the uncertainty surrounding safety policies and practices in health/fitness facilities not only endangers the health and safety of the people, but exposes health/fitness professionals to the serious risk of legal liability. In this light, the main purpose of this study was to investigate risk management practices of the health/fitness facilities in Queensland. The data was collected using the self-developed survey HFRMQ comprised of the risk management items that were highlighted in the review of literature. There were eight dimensions of risk management practices in the HFRMQ, namely: (1) inspections; (2) maintenance; (3) programs; (4) emergency plans; (5) construction/design; (6) participant/membership forms; (7) staff; and (8) insurance.

The results of this study showed that the health/fitness facilities in Queensland had low adherence to risk management practices related to ‘emergency plans’ the most. As the ‘risk management pyramid’ in Figure 6 illustrates, ‘having a written emergency plan’ serves as the fifth line of defence for health/fitness facilities to minimise legal liability, provided that it is regularly practiced and rehearsed as part of a proper risk management program. Even though most of the heath/fitness facilities that participated in this study had a written emergency plan, the majority of the managers disagreed with the emergency drills and the use of automated external

defibrillators (AEDs) as recommended by international organizations (Balady et al., 1998; Balady et al., 2002). For example, most of the health/fitness facility managers reported that they did not revise their emergency plans at least once a month and failed to have their emergency response systems physically rehearsed by all staff at least four times per year. These results were similar to research conducted in the United States that demonstrated safety concerns due to a lack of cardiac emergency preparation in health/fitness facilities (Connaughton, Spengler and Zhang, 2007; Herbert et al., 2007).

If a participant is injured or has some other medical emergency like a sudden cardiac arrest (SCA), it is crucial for the health/fitness facility staff to give proper care to the victim. As supported by the national and international training standards in the health/fitness industry, health/fitness facilities have a legal duty to provide appropriate first aid and CPR. Furthermore, as Subsection 6.4 in Chapter 2 of this thesis extensively illustrated, it looks increasingly likely that in the future, the installation of automated external defibrillators (AEDs) in health/fitness facilities may also be required to meet the legal standard of care that should be provided to a SCA victim, especially in those facilities that have a large number of high risk client. However, the results of this study showed that only 19.2% (n=10) of the health/fitness facilities in Queensland had an AED installed and only 11.5% (n=6) of the health/fitness facilities included a public access defibrillator (PAD) program in their emergency plans (Appendix D). '*Having an AED installed in the facility*' was also rated as the least important risk management practice by the health/fitness facility managers. Taking into consideration the fact that at least 92.3% of the health/fitness facilities in Queensland provide exercise and rehabilitative programs for special populations including high risk people over the age of 50 and people with cardiovascular diseases (Appendix D), there is a crucial need to inform the health/fitness facility managers about risk management practices related to emergency action plans and the life-saving benefits of AEDs in order to promote the deployment and use of AEDs in health/fitness facilities. This would not only enhance the safety of the services that

these facilities provide, but reduce the risk of adverse health outcomes and the resultant legal liability due to a failure to provide proper emergency medical care.

Not unexpectedly, this study showed that larger health/fitness facilities reported more number of injuries sustained on their premises than smaller sized health/fitness facilities. One limitation with this outcome is the fact that this result does not reflect the number of injuries per meter square of health/fitness facilities. Therefore, other factors should also be taken into consideration that may have contributed to high number of injuries in these health/fitness facilities. For instance, one of the outcomes of this study was that the daily average member population of health/fitness facilities had a significant effect on the number of injuries that these facilities had in the last twelve months. Therefore, it can be suggested that a health/fitness fitness facility with high daily member population relative to the allocated exercise space have an increased risk of injuries to participants due to overcrowding and failing to provide adequate space to exercise safely.

In the United States overcrowding of exercise areas has been the subject of numerous negligence claims raised against health/fitness facilities (Eichoff-Shemek, Herbert and Connaughton, 2009, p.221). In this light, health/fitness facility managers are recommended to pay particular attention to developing effective risk management strategies in monitoring their daily member population and taking preventative measures in dealing with overcrowding in the designated exercise areas. For example, a viable risk management strategy for health/fitness facilities can be the recruitment of fitness instructors to constantly inspect and provide effective supervision in the overcrowded exercise areas that can help to prevent the risk of injuries to their customers. The results of this study revealed that the number of injuries in health/fitness facilities does not affect the number of legal claims that these facilities have. However, 19.2% of the health/fitness facilities that participated in this study had been sued by a participant who sustained injuries in their facility. Of the reported 23 lawsuits, 22 of them were settled after court action started and there were 5 legal claims that were settled before court action started. The high number of out of court settlements can be due to a strong incentive of the parties (especially the defendants)

to settle to avoid the legal costs (such as legal fees, finding expert witnesses, etc.) involved in going to trial. Furthermore, the defendants may seek settling so as to avoid the bad publicity associated with litigation. From this stand point, the results of this study suggest that less legal liability cases do not necessarily mean that there are fewer injuries caused by negligence of health/fitness service providers.

Even though the risk management practices of the health/fitness facilities that had been sued were not significantly different than the other health/fitness facilities, these facilities showed lower adherence to risk management practices in regards to 'inspections', 'emergency plans', 'construction/design' and 'participant/membership forms'. From this standpoint, health/fitness facilities should carefully analyse and adopt the best industry practices in these risk management areas while developing their risk management programs.

While developing the research questions of this study it was hypothesized that registration with Fitness Australia would create a significant difference as to the implementation of risk management practices in health/fitness facilities. The main reason for this assumption was that Fitness Australia works with the state associations to encourage an overall accreditation framework to set uniform business standards across the nation. The majority of the health/fitness facilities (82.7%) that volunteered to participate in this study were registered to Fitness Australia. However, the results of this study indicated that registered health/fitness facilities showed a significant difference only in risk management practices related to 'insurance'.

It is assumed that the main reason why insurance is the most commonly used risk management practice among registered health/fitness facilities may be due to an average of 25% discount that registered health/fitness businesses can receive on their business insurance premiums under the business registration scheme of Fitness Australia (Fitness Australia Business Registration Program, 2010a). Another reason for the common use of insurance can be related to its ease of administration in terms of the time and effort that it would require in a risk management process. However, this should not be used as a mitigating circumstance by Fitness Australia for the low adherence to other risk management practices by their registered health/fitness facility

managers. Rather, these results should be an initiative for Fitness Australia to equip health/fitness facility managers with the competencies and skills required to develop and implement effective risk management programs that can help to improve the safety of the programs they deliver to their customers.

In the last section of the HFRMQ, when health/fitness facility managers were asked to rate the importance of specified risk management practices, they reported *'having insurance'* as the most important risk management practice in comparison to programmatic risk management practices such as '*having an AED installed in the facility*', '*having a written emergency plan*' and '*providing orientation programs*' that can actually help them prevent and cope with injuries and adverse health outcomes in the first place. Often risk management is used interchangeably with insurance. However, insurance is only one of the contractual tools used in treatment of financial risks by transferring the cost of major losses that can result from injuries and liability claims to an insurance company in return for paying a premium. The results of this study revealed that while all of the health/fitness facilities had insurance, only 50% strongly agreed that they were aware of the coverage of their insurance policies. In this light, health/fitness facility managers have to be aware of having adequate insurance coverage and understanding the terms and conditions of any insurance contract.

Most insurance companies have a risk management checklist that they have the insured person complete prior to offering a premium. Many multi-purpose recreational facilities heavily rely on these directions for implementing safety practices (Finch et al., 2009a), yet they are most unaware of the safety standards relevant to the fitness services. For example, in *Marshbaum v Loose Fit Pty Ltd and Anor* (2010), an insurance company`s lack of knowledge about safety standards relevant to the construction and design of the fitness facility was demonstrated. In this particular case, it was noted that the insurance company came to make inspections on the premises and made suggestions to the defendant health/fitness facility operator to put a handrail on the upper flight of stairs in compliance with the Building Codes of Australia, only after the plaintiff fell off the stairs and suffered injuries to her left

shoulder. Therefore, it is suggested that health/fitness facilities should not rely solely on the information they receive from insurers in developing their risk management programs.

The second most highly regarded risk management practice by health/fitness facility managers was *'having waiver forms signed by participants'*. Similar to insurance, liability waivers are also only one of the contractual tools to transfer costs associated with the risk of injury claims to their exercise participants who agree not to hold the facility and their employees responsible for negligently caused injuries and hence relinquish their right to sue in this regard. Provided that such documents are satisfactorily constructed and executed, they may only help protect health/fitness professionals and facilities *after* a negligence claim is made or lawsuit is filed against them. Therefore, health/fitness facilities should not depend on waivers as the sole risk management practice against legal liability claims. Implementing safety risk management practices to prevent injuries and cope with emergency health situations that can arise out of the fitness services delivered to the customers can be a much more effective and efficient way to minimise the likelihood of legal liability claims in the first place.

All in all, the results of this study indicate that the health/fitness facility managers in Queensland need to attain crucial knowledge about conducting a comprehensive 'risk management program' that not only aims to minimise financial risks but also aims to prevent and minimise programmatic risks.

3. Conclusions

On a theoretical level, this study demonstrated that health/fitness facilities in Queensland have the lowest adherence to programmatic risk management practices related to the 'emergency plans', whereas financial risk management practices such as 'insurance' and 'waivers' were implemented and valued the most. From one perspective, this may be due to a lack of national fitness industry standards in Australia that health/fitness facilities in Queensland can use as a benchmark in developing comprehensive risk management programs. From another perspective, the

low adherence to programmatic risk management practices may suggest that the self-regulatory model -via the national registration scheme, training standards and the *Fitness Industry Code of Practice 2003* (Qld) is not being effective in helping health/fitness facilities develop and implement risk management strategies that can help to enhance the safety of the services that health/fitness facilities provide.

According to Mitchell and McClure (2006, p. 4 of 6) the main hurdle against implementation of injury prevention strategies is that:

> [w]hile injuries are treated within the health system, the risk factors for injury (eg. environmental, social or object specific) and the creation of legislation and standards that aim to prevent injuries largely lie outside the jurisdiction of the health sector.

From this perspective, there are several practical implications of this study for future research. Firstly, the HFRMQ should be revised and conducted among a representative sample of all health/fitness facilities in Australia to gather information about the implementation of safety and legal risk management practices of health/fitness facilities at a national level. Secondly, this information should be used in the development of viable, sustainable and agreed upon standards of risk management practices for the Australian health/fitness industry. In this regard, the collaborative work of researchers in law, risk management, sport management, exercise science and injury prevention with the health/fitness industry stake holders should be established. According to the former Queensland Minister for Fair Trading Merri Rose, standards dealing with fair trading practices were satisfactorily embraced by health/fitness facilities in Queensland following the commencement of the *Fitness Industry Code of Practice* on 1 July 2003 (Australian Government Department of Education, Employment and Workplace Relations, 2009). Therefore, integrating the proposed standards of risk management practices into a 'Fitness Industry Code of Practice' that is uniform in all states and territories of Australia should also be considered to enhance the adaption of risk management best practices by all health/fitness facilities nationwide.

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APPENDIX A

Ethical Approval

BOND UNIVERSITY
BRINGING AMBITION TO LIFE

HUMAN RESEARCH
ETHICS COMMITTEE
Bond University
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ABN 88 010 694 121
CRICOS CODE 00017B

9 April 2009

Prof Shayne Quick/Betul Sekendiz
Mieke van Driel/A/P Vivienne O'Connor
Faculty of Health Sciences and Medicine
Bond University

Dear Shayne

Protocol No: **RO930**
Project Title: **Analysis of risk management practices in Australia health and fitness industry: minimising the likelihood of liability**

I am pleased to confirm that your project was reviewed under the Expedited review procedure and you have been granted approval to proceed.

Please note that BUHREC's role is to monitor research projects until completion. The Committee requires, as a condition of approval, that all investigations be carried out in accordance with the National Health and Medical Research Council's (NHMRC) National Statement on Ethical Conduct in Research Involving Humans and Supplementary Notes. Specifically, approval is dependent upon your compliance, as the researcher, with the requirements set out in the National Statement as well as the research protocol listed in the Declaration which you have signed.

Please be aware that the approval is given subject to the protocol of the study being under taken as described in your application with amendments, where appropriate. As you may be aware the Ethics Committee is required to annually report on the progress of research it has approved. We would greatly appreciate if you could advise us when you have completed data collection and when the study is completed

Should you have any queries or experience any problems, please liaise directly with Caroline Carstens early in your research project: Telephone: (07) 559 54194, Facsimile: (07) 559 51120, Email: buhrec@bond.edu.au.

We wish you well with your research project.

Yours sincerely

Dr Mark Bahr
Chair

APPENDIX–B

Informed Consent Form

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Informed Consent Form

Please read this informed consent form carefully and put a tick ( ) on the circle at the bottom of the page if you accept that you have throughly read and understand this consent form.

1. I hereby consent to freely and voluntarily participate in the research project entitled "An Investigation of Risk Management Practices in the Australian Health and Fitness Industry: Minimizing the Likelihood of Legal Liability".

2. This research is being conducted by Betul Sekendiz, who is a doctoral student of Sport Management Program at the Health Sciences and Medicine Faculty, Bond University.

3. I understand the purpose of this research project is to better understand the risk management practices in the health and fitness industry.

4. I understand that if I participate in this study I will be asked questions about risk management practices in my facility as well as general demographic questions about myself and my institution.

5. I understand I will be asked to fill out a questionnaire. The total time commitment will be about 15 minutes.

6. I understand my participation is voluntary and I may stop participation at anytime.

7. All my answers to the questions will be kept confidential and identified by a subject code number. My e-mail address and name or my institution's name and e-mail address will not appear on any of the results. No individual responses will be reported.

8. I understand there are benefits for participating in this research project. First, my own awareness about risk management practice will be increased. Also, I will be providing more in-depth and more practical first hand information in the area of risk management issues and practices. This knowledge can assist my institution to prevent risks of legal liability and litigation in the future.

9. I have been given the right to ask questions concerning the study. Questions, if any, have been answered to my satisfaction.

10. I understand that I may contact Betul Sekendiz, Ph.D. student in Sport Management, at Bond University, Health Sciences and Medicine Faculty, Gold Coast, Queensland 4229 Australia (e-mail: bsekendi@bond.edu.au) ; and Shayne Quick, Prof. in Sport Management, at Health Sciences and Medicine Faculty, Gold Coast, Queensland 4229 Australia (Telephone: +61 7 5595 4429, Facsimile: +61 7 5595 4480, e-mail: squick@bond.edu.au), and Bond University Ethics Officer (e-mail: buhrec@bond.edu.au , tel: 0+ 5595 4194, fax: 07 5595 1120) for answers to questions about this research or my rights.

◯ I accept that I have thoroughly read and understand this consent form.

APPENDIX C

Health/Fitness Industry Risk Management Quetstionnaire (HFRMQ)

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment - Inspections

For each of the following statements, please put a tick ( ) on the circle next to the answer that best corresponds to the risk management practice in your health and fitness facility.

1. My facility regularly conducts inspections on the premises.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

2. My facility keeps inspection reports on file.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

3. My facility has an inspection safety checklist for each area (e.g. weight training area, squash courts, locker rooms etc.).

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

4. Locker rooms are checked regularly for unsafe conditions.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

5. My fitness instructors check exercise equipment regularly for possible hazards.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

Page 1

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment- Maintenance

6. Fitness equipment in my facility is under a maintenance agreement.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

7. My facility has a preventive maintenance program for the fitness equipment.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

8. Fitness equipment in our facility has a documentation system showing when the scheduled work was performed.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

9. If equipment is broken down we have a signage system that prevents participants from using it.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

10. Equipment in our facility conforms to national safety standards.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

Page 2

APPENDIX C (*Continued*)

HFRMQ

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment- Programs

11. My facility provides exercise and rehabilitative programs for special populations (e.g. people over 50 years old,or people with cardiovascular diseases or lower back pain).

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

12. My facility provides programs serviced by specially trained health and fitness professionals in their area.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

13. Qualified supervision is provided during all activities, particularly whilst equipment is being used.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

14. All new participants in my facility are given an orientation program.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

Page 3

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment- Emergency Plans

15. My facility has a written emergency plan.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

16. Our emergency plan is revised at least once a month.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

17. Our emergency response system is physically rehearsed by all staff at least four times per year.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

18. Our emergency plan includes a public access defibrillator (PAD) program.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

19. My facility uses accident/injury report forms.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

Page 4

APPENDIX C (*Continued*)

HFRMQ

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment- Emergency Plans

20. My facility keeps accident/injury report forms on file.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

21. We take necessary precautions to avoid an injury/accident from happening again.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

22. All areas in my facility have first aid kits within easy reach.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

23. My facility has a plan of action on how to deal with media inquiries (e.g. accidents, law suits, false claims).

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

24. My facility has at least one Automated External Defibrillator (AED) installed.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

Page 5

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment-Construction and Design

25. Our facility meets the requirements of the Australian Disability Discrimination Act.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

26. Our facility complies with Australian Standards for access and mobility.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

27. Signage in our facility is easily recognizable, and complies with the established standards.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

28. Design of workplace equipment and activities complies with Workplace and Occupational Health and Safety Act.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

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APPENDIX C (*Continued*)

HFRMQ

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Faclities and Equipment- Participant/Membership forms

29. All participants must undertake pre-activity screening procedures.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

30. If a participant is identified as having a medical concern as a result of pre-activity screening that person is required to consult with a qualified healthcare provider.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

31. All participants are required to sign a waiver form.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

32. Waiver forms are updated when new fitness equipment is installed in the facility.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

33. Waiver forms are updated when a membership is renewed.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

34. Waiver forms are updated when a member starts participating in a new type of activity.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

35. Legal advice was obtained while developing contracts such as waiver forms and membership forms.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

Page 7

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment- Participant/Membership forms

36. If the participant is a minor, a guardian or parent of the minor and minor sign the parental waiver form prior to membership or participation.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

37. My facility complies with the Fitness Industry Code of Practice.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

38. A written copy of Code of Practice is given to all members.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

39. All participants are given written rules and guidelines for exercising and use of exercise equipment for safety.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

40. My facility keeps membership contracts on file.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

41. My facility keeps pre-activity screening and medical clearance forms of participants on file.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

42. My facility keeps personal information about participants confidential.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

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APPENDIX C (*Continued*)

HFRMQ

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment- Insurance

43. All fitness professionals in my facility (i.e. fitness instructors, personal trainers, managers) have current public liability insurance and professional indemnity insurance.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

44. I am aware of the coverage of the insurance policies.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

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Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment-Staff/Personnel

45. My fitness professionals are registered to Fitness Australia.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

Other (please specify)

46. My fitness professionals hold current accredited certifications.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

47. My facility provides in-service training for revision of emergency action plans.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

48. My facility provides in service training for new equipment usage.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

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APPENDIX C (*Continued*)

HFRMQ

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Facilities and Equipment- Staff/Personnel

49. My facility provides in service training for employees to keep up with current industry standards and guidelines.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

50. Our fitness professionals and staff have current First Aid / CPR certificate and training.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

51. Our fitness professionals and staff who are recruited to use AED incase of an emergency situation hold current AED training and certificate. (please skip this question if not applicable)

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

52. I am aware of the international standards in the health and fitness industry.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

53. My facility complies with the international standards in the health and fitness industry.

◯ strongly disagree ◯ disagree ◯ not sure ◯ agree ◯ strongly agree

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Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Demographic Information- General information about you

54. What is your gender?

◯ Female ◯ Male

55. How old are you?

◯ 18-24 ◯ 25-34 ◯ 35-44 ◯ 45-54 ◯ 55-64 ◯ 65 and over

56. What is your current position in the facility?

◯ Manager ◯ Owner-manager

57. How many years have you been in the present position?

◯ 1-5 ◯ 6-10 ◯ 11-15 ◯ 16-20 ◯ 21-30 ◯ >30

58. How many years have you been in the health and fitness business?

◯ 1-5 ◯ 6-10 ◯ 11-15 ◯ 16-20 ◯ 21-30 ◯ >30

Page 12

APPENDIX C (*Continued*)

HFRMQ

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Demographic Information- General information about your facility

59. Which state is your facility located in ?

- ◯ ACT
- ◯ NSW
- ◯ NT
- ◯ QLD
- ◯ SA
- ◯ TAS
- ◯ VIC
- ◯ WA

60. Is your institution registered to Fitness Australia?

- ◯ Yes
- ◯ No

61. What type of an institution is your facility?

- ◯ Public
- ◯ Private
- ◯ Other (please specify)

62. What is the size of your facility?

- ◯ <500 m2
- ◯ 500- 990 m2
- ◯ 1000- 3000 m2
- ◯ 3100- 6000 m2
- ◯ 6100- 9000 m2
- ◯ >9000 m2

63. What kind of activities does your facility offer?
(Please select all that applies)

- ☐ Free weight training
- ☐ Weight training with fitness machines
- ☐ Cardiovascular training area (i.e. treadmills, ellipticals…)
- ☐ Racquet sports
- ☐ Swimming pool
- ☐ Group exercise classes

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Demographic Information- General information about your facility

64. What is the daily average number of participants using your facility?(please specify)

Females
Males
Total

65. What is the average member population of your facility? (please specify)

Females
Males
Total

66. Does your health and fitness facility have a risk management plan?

- ◯ Yes
- ◯ No

67. Do you have a line item in your budget for your risk management practices?

- ◯ Yes
- ◯ No (please go to question 69)

68. What percentage is this of your total budget?(please specify)

- ◯ 1-2%
- ◯ 3-5%
- ◯ 6-8%
- ◯ 8-10%
- ◯ >10%
- ◯ Other (please specify)

APPENDIX C (*Continued*)

HFRMQ

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Demographic Information- General information about your facility

69. How many incidents or accidents/injuries have occurred in your facility in the last twelve months?

◯ none ◯ 1-3 ◯ 4-6 ◯ 7-9 ◯ more than 10

70. In comparison to the prior twelve month period, has the number of injuries in your facility :

◯ increased ◯ decreased ◯ not sure ◯ stayed the same ◯ not applicable

71. What areas or activities of your facility have the highest number of reported accidents/injuries?

◯ weight training area ◯ cardio ◯ racquet sports ◯ group exercises

◯ Other (please specify)

72. What type of injuries occur in your facility the most ?

◯ orthopaedic injury ◯ sprains/strains ◯ seizure ◯ sudden cardiac arrest

◯ Other (please specify)

73. Has your health and fitness facility ever been sued by a participant who sustained injuries at your facility?

◯ Yes ◯ No (please go to question 77)

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Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Demographic Information- General information about the facility

74. How many times was your facility sued?

◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 ◯ 7 ◯ 8 ◯ 9 ◯ 10

Other (please specify)

75. How many of these law suits were settled out of court?

◯ None ◯ 1 ◯ 2 ◯ 3 ◯ 4 ◯ 5 ◯ 6 ◯ 7 ◯ 8 ◯ 9 ◯ 10

Other (please specify)

76. What type of injury involved the lawsuits brought against your facility the most?

☐ orthopaedic injury

☐ sprains/strains

☐ seizure

☐ sudden cardiac arrest

☐ Other (please specify)

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APPENDIX C (*Continued*)

HFRMQ

Health and Fitness Industry Risk Management Questionnaire (HFRMQ)

Your General Opinions about Risk Management

77. Please rate the importance of the selected risk management practices given below by putting a tick on the circle that best corresponds to your answer.

	Unimportant	Of Little Importance	Moderately Important	Important	Very Important
Having a risk management plan.	◯	◯	◯	◯	◯
Conducting regular inspections on the premises.	◯	◯	◯	◯	◯
Having a preventive maintenance program.	◯	◯	◯	◯	◯
Providing orientation programs.	◯	◯	◯	◯	◯
Having an AED installed in the facility.	◯	◯	◯	◯	◯
Having a written emergency plan.	◯	◯	◯	◯	◯
Having pre-activity screening procedures.	◯	◯	◯	◯	◯
Having waiver forms signed by the participants.	◯	◯	◯	◯	◯
Having insurance.	◯	◯	◯	◯	◯
Conducting record keeping.	◯	◯	◯	◯	◯

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APPENDIX D

Frequency and Percentage of the HFRMQ Items

1) My facility regularly conducts inspections on the premises.				
	f	%	Valid %	Cumulative %
strongly disagree	2	3.8	3.8	3.8
disagree	2	3.8	3.8	7.7
not sure	4	7.7	7.7	15.4
agree	17	32.7	32.7	48.1
strongly agree	27	51.9	51.9	100.0
Total	52	100.0	100.0	

2) My facility keeps inspection reports on file.				
	f	%	Valid %	Cumulative %
strongly disagree	2	3.8	3.8	3.8
disagree	13	25.0	25.0	28.8
not sure	6	11.5	11.5	40.4
agree	12	23.1	23.1	63.5
strongly agree	19	36.5	36.5	100.0
Total	52	100.0	100.0	

3) My facility has an inspection safety checklist for each area (e.g. weight training area, squash courts, locker rooms etc.).				
	f	%	Valid %	Cumulative %
strongly disagree	2	3.8	3.8	3.8
disagree	12	23.1	23.1	26.9
not sure	8	15.4	15.4	42.3
agree	12	23.1	23.1	65.4
strongly agree	18	34.6	34.6	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

4) Locker rooms are checked regularly for unsafe conditions.				
	f	%	Valid %	Cumulative %
strongly disagree	3	5.8	5.8	5.8
disagree	2	3.8	3.8	9.6
not sure	3	5.8	5.8	15.4
agree	20	38.5	38.5	53.8
strongly agree	24	46.2	46.2	100.0
Total	52	100.0	100.0	

5) My fitness instructors check exercise equipment regularly for possible hazards.				
	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	2	3.8	3.8	5.8
agree	21	40.4	40.4	46.2
strongly agree	28	53.8	53.8	100.0
Total	52	100.0	100.0	

6) Fitness equipment in my facility is under a maintenance agreement.				
	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	12	23.1	23.1	25.0
not sure	3	5.8	5.8	30.8
agree	17	32.7	32.7	63.5
strongly agree	19	36.5	36.5	100.0
Total	52	100.0	100.0	

7) My facility has a preventive maintenance program for the fitness equipment.				
	f	%	Valid %	Cumulative %
disagree	4	7.7	7.7	7.7
not sure	7	13.5	13.5	21.2
agree	20	38.5	38.5	59.6
strongly agree	21	40.4	40.4	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

8) Fitness equipment in our facility has a documentation system showing when the scheduled work was performed.

	f	%	Valid %	Cumulative %
disagree	8	15.4	15.4	15.4
not sure	4	7.7	7.7	23.1
agree	23	44.2	44.2	67.3
strongly agree	17	32.7	32.7	100.0
Total	52	100.0	100.0	

9) If equipment is broken down we have a signage system that prevents participants from using it.

	f	%	Valid %	Cumulative %
disagree	3	5.8	5.8	5.8
not sure	1	1.9	1.9	7.7
agree	17	32.7	32.7	40.4
strongly agree	31	59.6	59.6	100.0
Total	52	100.0	100.0	

10) Equipment in our facility conforms to national safety standards.

	f	%	Valid %	Cumulative %
not sure	4	7.7	7.7	7.7
agree	16	30.8	30.8	38.5
strongly agree	32	61.5	61.5	100.0
Total	52	100.0	100.0	

11) My facility provides exercise and rehabilitative programs for special populations (e.g. people over 50 years old, or people with cardiovascular diseases or lower back pain).

	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	3	5.8	5.8	7.7
agree	17	32.7	32.7	40.4
strongly agree	31	59.6	59.6	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

12) My facility provides programs serviced by specially trained health and fitness professionals in their area.

	f	%	Valid %	Cumulative %
disagree	1	1.9	1.9	1.9
agree	19	36.5	36.5	38.5
strongly agree	32	61.5	61.5	100.0
Total	52	100.0	100.0	

13) Qualified supervision is provided during all activities, particularly whilst equipment is being used.

	f	%	Valid %	Cumulative %
strongly disagree	2	3.8	3.8	3.8
disagree	8	15.4	15.4	19.2
not sure	1	1.9	1.9	21.2
agree	21	40.4	40.4	61.5
strongly agree	20	38.5	38.5	100.0
Total	52	100.0	100.0	

14) All new participants in my facility are given an orientation program.

	f	%	Valid %	Cumulative %
disagree	5	9.6	9.6	9.6
agree	15	28.8	28.8	38.5
strongly agree	32	61.5	61.5	100.0
Total	52	100.0	100.0	

15) My facility has a written emergency plan.

	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	4	7.7	7.7	9.6
not sure	6	11.5	11.5	21.2
agree	22	42.3	42.3	63.5
strongly agree	19	36.5	36.5	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

16) Our emergency plan is revised at least once a month.				
	f	%	Valid %	Cumulative %
strongly disagree	4	7.7	7.7	7.7
disagree	28	53.8	53.8	61.5
not sure	11	21.2	21.2	82.7
agree	6	11.5	11.5	94.2
strongly agree	3	5.8	5.8	100.0
Total	52	100.0	100.0	

17) Our emergency response system is physically rehearsed by all staff at least four times per year.				
	f	%	Valid %	Cumulative %
strongly disagree	6	11.5	11.5	11.5
disagree	27	51.9	51.9	63.5
not sure	4	7.7	7.7	71.2
agree	10	19.2	19.2	90.4
strongly agree	5	9.6	9.6	100.0
Total	52	100.0	100.0	

18) Our emergency plan includes a public access defibrillator (PAD) program.				
	f	%	Valid %	Cumulative %
strongly disagree	14	26.9	26.9	26.9
disagree	24	46.2	46.2	73.1
not sure	8	15.4	15.4	88.5
agree	2	3.8	3.8	92.3
strongly agree	4	7.7	7.7	100.0
Total	52	100.0	100.0	

19) My facility uses accident/injury report forms.				
	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	1	1.9	1.9	3.8
not sure	2	3.8	3.8	7.7
agree	20	38.5	38.5	46.2
strongly agree	28	53.8	53.8	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

20) My facility keeps accident/injury report forms on file.				
	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	1	1.9	1.9	3.8
not sure	1	1.9	1.9	5.8
agree	20	38.5	38.5	44.2
strongly agree	29	55.8	55.8	100.0
Total	52	100.0	100.0	

21) We take necessary precautions to avoid an injury/accident from happening again.				
	f	%	Valid %	Cumulative %
disagree	1	1.9	1.9	1.9
not sure	1	1.9	1.9	3.8
agree	17	32.7	32.7	36.5
strongly agree	33	63.5	63.5	100.0
Total	52	100.0	100.0	

22) All areas in my facility have first aid kits within easy reach.				
	f	%	Valid %	Cumulative %
disagree	4	7.7	7.7	7.7
not sure	1	1.9	1.9	9.6
agree	20	38.5	38.5	48.1
strongly agree	27	51.9	51.9	100.0
Total	52	100.0	100.0	

23) My facility has a plan of action on how to deal with media inquiries (e.g. accidents, law suits, false claims).				
	f	%	Valid %	Cumulative %
strongly disagree	2	3.8	3.8	3.8
disagree	11	21.2	21.2	25.0
not sure	11	21.2	21.2	46.2
agree	16	30.8	30.8	76.9
strongly agree	12	23.1	23.1	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

24) My facility has at least one Automated External Defibrillator (AED) installed.				
	f	%	Valid %	Cumulative %
strongly disagree	14	26.9	26.9	26.9
disagree	22	42.3	42.3	69.2
not sure	6	11.5	11.5	80.8
agree	4	7.7	7.7	88.5
strongly agree	6	11.5	11.5	100.0
Total	52	100.0	100.0	

25) Our facility meets the requirements of the Australian Disability Discrimination Act.				
	f	%	Valid %	Cumulative %
disagree	1	1.9	1.9	1.9
not sure	23	44.2	44.2	46.2
agree	20	38.5	38.5	84.6
strongly agree	8	15.4	15.4	100.0
Total	52	100.0	100.0	

26) Our facility complies with Australian Standards for access and mobility.				
	f	%	Valid %	Cumulative %
disagree	1	1.9	1.9	1.9
not sure	19	36.5	36.5	38.5
agree	22	42.3	42.3	80.8
strongly agree	10	19.2	19.2	100.0
Total	52	100.0	100.0	

27) Signage in our facility is easily recognizable, and complies with the established standards.				
	f	%	Valid %	Cumulative %
disagree	2	3.8	3.8	3.8
not sure	10	19.2	19.2	23.1
agree	24	46.2	46.2	69.2
strongly agree	16	30.8	30.8	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

28) Design of workplace equipment and activities complies with Workplace and Occupational Health and Safety Act.

	f	%	Valid %	Cumulative %
disagree	2	3.8	3.8	3.8
not sure	11	21.2	21.2	25.0
agree	21	40.4	40.4	65.4
strongly agree	18	34.6	34.6	100.0
Total	52	100.0	100.0	

29) All participants must undertake pre-activity screening procedures.

	f	%	Valid %	Cumulative %
disagree	4	7.7	7.7	7.7
agree	22	42.3	42.3	50.0
strongly agree	26	50.0	50.0	100.0
Total	52	100.0	100.0	

30) If a participant is identified as having a medical concern as a result of pre-activity screening that person is required to consult with a qualified healthcare provider.

	f	%	Valid %	Cumulative %
not sure	1	1.9	1.9	1.9
agree	23	44.2	44.2	46.2
strongly agree	28	53.8	53.8	100.0
Total	52	100.0	100.0	

31) All participants are required to sign a waiver form.

	f	%	Valid %	Cumulative %
agree	17	32.7	32.7	32.7
strongly agree	35	67.3	67.3	100.0
Total	52	100.0	100.0	

32) Waiver forms are updated when new fitness equipment is installed in the facility.

	f	%	Valid %	Cumulative %
strongly disagree	6	11.5	11.5	11.5
disagree	16	30.8	30.8	42.3
not sure	10	19.2	19.2	61.5
agree	10	19.2	19.2	80.8
strongly agree	10	19.2	19.2	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

33) Waiver forms are updated when a membership is renewed.				
	f	%	Valid %	Cumulative %
strongly disagree	3	5.8	5.8	5.8
disagree	7	13.5	13.5	19.2
not sure	7	13.5	13.5	32.7
agree	18	34.6	34.6	67.3
strongly agree	17	32.7	32.7	100.0
Total	52	100.0	100.0	

34) Waiver forms are updated when a member starts participating in a new type of activity.				
	f	%	Valid %	Cumulative %
strongly disagree	2	3.8	3.8	3.8
disagree	25	48.1	48.1	51.9
not sure	7	13.5	13.5	65.4
agree	9	17.3	17.3	82.7
strongly agree	9	17.3	17.3	100.0
Total	52	100.0	100.0	

35) Legal advice was obtained while developing contracts such as waiver forms and membership forms.				
	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	2	3.8	3.8	5.8
not sure	12	23.1	23.1	28.8
agree	17	32.7	32.7	61.5
strongly agree	20	38.5	38.5	100.0
Total	52	100.0	100.0	

36) If the participant is a minor, a guardian or parent of the minor and minor sign the parental waiver form prior to membership or participation.				
	f	%	Valid %	Cumulative %
not sure	2	3.8	3.8	3.8
agree	18	34.6	34.6	38.5
strongly agree	32	61.5	61.5	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

37) My facility complies with the Fitness Industry Code of Practice.				
	f	%	Valid %	Cumulative %
not sure	4	7.7	7.7	7.7
agree	19	36.5	36.5	44.2
strongly agree	29	55.8	55.8	100.0
Total	52	100.0	100.0	

38) A written copy of Code of Practice is given to all members.				
	f	%	Valid %	Cumulative %
strongly disagree	3	5.8	5.8	5.8
disagree	26	50.0	50.0	55.8
not sure	10	19.2	19.2	75.0
agree	6	11.5	11.5	86.5
strongly agree	7	13.5	13.5	100.0
Total	52	100.0	100.0	

39) All participants are given written rules and guidelines for exercising and use of exercise equipment for safety.				
	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	21	40.4	40.4	42.3
not sure	4	7.7	7.7	50.0
agree	14	26.9	26.9	76.9
strongly agree	12	23.1	23.1	100.0
Total	52	100.0	100.0	

40) My facility keeps membership contracts on file.				
	f	%	Valid %	Cumulative %
agree	18	34.6	34.6	34.6
strongly agree	34	65.4	65.4	100.0
Total	52	100.0	100.0	

41) My facility keeps pre-activity screening and medical clearance forms of participants on file.				
	f	%	Valid %	Cumulative %
not sure	2	3.8	3.8	3.8
agree	22	42.3	42.3	46.2
strongly agree	28	53.8	53.8	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

42) My facility keeps personal information about participants confidential.

	f	%	Valid %	Cumulative %
disagree	1	1.9	1.9	1.9
agree	18	34.6	34.6	36.5
strongly agree	33	63.5	63.5	100.0
Total	52	100.0	100.0	

43) All fitness professionals in my facility (i.e. fitness instructors, personal trainers, managers) have current public liability insurance and professional indemnity insurance.

	f	%	Valid %	Cumulative %
disagree	4	7.7	7.7	7.7
not sure	2	3.8	3.8	11.5
agree	16	30.8	30.8	42.3
strongly agree	30	57.7	57.7	100.0
Total	52	100.0	100.0	

44) I am aware of the coverage of the insurance policies.

	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	4	7.7	7.7	9.6
not sure	5	9.6	9.6	19.2
agree	16	30.8	30.8	50.0
strongly agree	26	50.0	50.0	100.0
Total	52	100.0	100.0	

45) My fitness professionals are registered to Fitness Australia.

	f	%	Valid %	Cumulative %
disagree	5	9.6	9.6	9.6
not sure	3	5.8	5.8	15.4
agree	16	30.8	30.8	46.2
strongly agree	28	53.8	53.8	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

46) My fitness professionals hold current accredited certifications.				
	f	%	Valid %	Cumulative %
disagree	3	5.8	5.8	5.8
not sure	1	1.9	1.9	7.7
agree	20	38.5	38.5	46.2
strongly agree	28	53.8	53.8	100.0
Total	52	100.0	100.0	

47) My facility provides in-service training for revision of emergency action plans.				
	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	13	25.0	25.0	26.9
not sure	6	11.5	11.5	38.5
agree	20	38.5	38.5	76.9
strongly agree	12	23.1	23.1	100.0
Total	52	100.0	100.0	

48) My facility provides in service training for new equipment usage.				
	f	%	Valid %	Cumulative %
disagree	8	15.4	15.4	15.4
not sure	5	9.6	9.6	25.0
agree	17	32.7	32.7	57.7
strongly agree	22	42.3	42.3	100.0
Total	52	100.0	100.0	

49) My facility provides in service training for employees to keep up with current industry standards and guidelines.				
	f	%	Valid %	Cumulative %
strongly disagree	1	1.9	1.9	1.9
disagree	13	25.0	25.0	26.9
not sure	4	7.7	7.7	34.6
agree	18	34.6	34.6	69.2
strongly agree	16	30.8	30.8	100.0
Total	52	100.0	100.0	

APPENDIX D (*Continued*)

Frequency and Percentage of the HFRMQ Items

50) Our fitness professionals and staff have current First Aid / CPR certificate and training.

	f	%	Valid %	Cumulative %
disagree	2	3.8	3.8	3.8
not sure	1	1.9	1.9	5.8
agree	20	38.5	38.5	44.2
strongly agree	29	55.8	55.8	100.0
Total	52	100.0	100.0	

51) Our fitness professionals and staff who are recruited to use AED in case of an emergency situation hold current AED training and certificate. (Please skip this question if not applicable.)

	f	%	Valid %	Cumulative %
disagree	1	1.9	5.6	5.6
not sure	9	17.3	50.0	55.6
agree	4	7.7	22.2	77.8
strongly agree	4	7.7	22.2	100.0
Total	18	34.6	100.0	

52) I am aware of the international standards in the health and fitness industry.

	f	%	Valid %	Cumulative %
disagree	9	17.3	17.3	17.3
not sure	19	36.5	36.5	53.8
agree	16	30.8	30.8	84.6
strongly agree	8	15.4	15.4	100.0
Total	52	100.0	100.0	

53) My facility complies with the international standards in the health and fitness industry.

	f	%	Valid %	Cumulative %
disagree	4	7.7	7.7	7.7
not sure	23	44.2	44.2	51.9
agree	17	32.7	32.7	84.6
strongly agree	8	15.4	15.4	100.0
Total	52	100.0	100.0	

APPENDIX E

Descriptive Statistics of the HFRMQ Items

HFRMQ Items	N	M	SE	SD
Inspections	52	4.011	.127	.921
1) My facility regularly conducts inspections on the premises.	52	4.25	.142	1.027
2) My facility keeps inspection reports on file.	52	3.63	.182	1.314
3) My facility has an inspection safety checklist for each area (e.g. weight training area, squash courts, locker rooms etc.).	52	3.62	.178	1.286
4) Locker rooms are checked regularly for unsafe conditions.	52	4.15	.151	1.092
5) My fitness instructors check exercise equipment regularly for possible hazards.	52	4.40	.117	.846
Maintenance	52	4.169	.094	.679
6) Fitness equipment in my facility is under a maintenance agreement.	52	3.79	.170	1.226
7) My facility has a preventive maintenance program for the fitness equipment.	52	4.12	.128	.922
8) Fitness equipment in our facility has a documentation system showing when the scheduled work was performed.	52	3.94	.141	1.018
9) If equipment is broken down we have a signage system that prevents participants from using it.	52	4.46	.111	.803
10) Equipment in our facility conforms to national safety standards.	52	4.54	.089	.641
Programs	52	4.341	.092	.666
11) My facility provides exercise and rehabilitative programs for special populations (e.g. people over 50 years old, or people with cardiovascular diseases or lower back pain).	52	4.42	.127	.915
12) My facility provides programs serviced by specially trained health and fitness professionals in their area.	52	4.58	.084	.605
13) Qualified supervision is provided during all activities, particularly whilst equipment is being used.	52	3.94	.163	1.178
14) All new participants in my facility are given an orientation program.	52	4.42	.127	.915
Emergency Plans	52	3.500	.085	.616
15) My facility has a written emergency plan.	52	4.04	.137	.989
16) Our emergency plan is revised at least once a month.	52	2.54	.139	.999
17) Our emergency response system is physically rehearsed by all staff at least four times per year.	52	2.63	.167	1.205
18) Our emergency plan includes a public access defibrillator (PAD) program.	52	2.19	.155	1.121

Notes: The HFRMQ items were answered on a 5 point Likert scale from 'Strongly Disagree' to 'Strongly Agree'. The closer the mean value to 5, the higher is the agreement with the particular item. N=Number; M=Mean; SE=Standard error of mean, SD=Standard deviation.

APPENDIX E (*Continued*)

Descriptive Statistics of the HFRMQ Items

HFRMQ Items	N	M	SE	SD
Emergency Plans (continued)	52	3.500	.085	.616
19) My facility uses accident/injury report forms.	52	4.40	.114	.823
20) My facility keeps accident/injury report forms on file.	52	4.44	.111	.802
21) We take necessary precautions to avoid an injury/accident from happening again.	52	4.58	.088	.637
22) All areas in my facility have first aid kits within easy reach.	52	4.35	.119	.861
23) My facility has a plan of action on how to deal with media inquiries (e.g. accidents, law suits, false claims).	52	3.48	.164	1.180
24) My facility has at least one Automated External Defibrillator (AED) installed.	52	2.35	.178	1.282
Construction/ Design	52	3.889	.084	.607
25) Our facility meets the requirements of the Australian Disability Discrimination Act.	52	3.67	.105	.760
26) Our facility complies with Australian Standards for access and mobility.	52	3.79	.108	.776
27) Signage in our facility is easily recognizable, and complies with the established standards.	52	4.04	.113	.816
28) Design of workplace equipment and activities complies with Workplace and Occupational Health and Safety Act.	52	4.06	.118	.850
Participant/ Membership Forms	52	4.012	.071	.512
29) All participants must undertake pre-activity screening procedures.	52	4.35	.116	.837
30) If a participant is identified as having a medical concern as a result of pre-activity screening that person is required to consult with a qualified healthcare provider.	52	4.52	.075	.542
31) All participants are required to sign a waiver form.	52	4.67	.066	.474
32) Waiver forms are updated when new fitness equipment is installed in the facility.	52	3.04	.184	1.328
33) Waiver forms are updated when a membership is renewed.	52	3.75	.169	1.219
34) Waiver forms are updated when a member starts participating in a new type of activity.	52	2.96	.171	1.236
35) Legal advice was obtained while developing contracts such as waiver forms and membership forms.	52	4.02	.136	.980
36) If the participant is a minor, a guardian or parent of the minor and minor sign the parental waiver form prior to membership or participation.	52	4.58	.079	.572

Notes: The HFRMQ items were answered on a 5 point Likert scale from 'Strongly Disagree' to 'Strongly Agree'. The closer the mean value to 5, the higher is the agreement with the particular item. N= Number; M= Mean; SE=Standard error of mean, SD= Standard deviation.

APPENDIX E (*Continued*)

Descriptive Statistics of the HFRMQ Items

HFRMQ Items	N	M	SE	SD
Participant/ Membership Forms(continued)	52	4.012	.071	.512
37) My facility complies with the Fitness Industry Code of Practice.	52	4.48	.089	.641
38) A written copy of Code of Practice is given to all members.	52	2.77	.162	1.165
39) All participants are given written rules and guidelines for exercising and use of exercise equipment for safety.	52	3.29	.177	1.273
40) My facility keeps membership contracts on file.	52	4.65	.067	.480
41) My facility keeps pre-activity screening and medical clearance forms of participants on file.	52	4.50	.080	.577
42) My facility keeps personal information about participants confidential.	52	4.60	.084	.603
Staff	18	3.956	.167	.712
43) My fitness professionals are registered to Fitness Australia.	52	4.29	.133	.957
44) My fitness professionals hold current accredited certifications.	52	4.40	.111	.799
45) My facility provides in-service training for revision of emergency action plans.	52	3.56	.161	1.162
46) My facility provides in service training for new equipment usage.	52	4.02	.149	1.075
47) My facility provides in service training for employees to keep up with current industry standards and guidelines.	52	3.67	.169	1.216
48) Our fitness professionals and staff have current First Aid / CPR certificate and training.	52	4.46	.101	.727
49) Our fitness professionals and staff who are recruited to use AED in case of an emergency situation hold current AED training and certificate. (Please skip this question if not applicable.)	18	3.61	.216	.916
50) I am aware of the international standards in the health and fitness industry.	52	3.44	.133	.958
51) My facility complies with the international standards in the health and fitness industry.	52	3.56	.118	.850
Insurance	52	4.288	.123	.887
52) All fitness professionals in my facility (i.e. fitness instructors, personal trainers, managers) have current public liability insurance and professional indemnity insurance.	52	4.38	.123	.889
53) I am aware of the coverage of the insurance policies.	52	4.19	.143	1.030

Notes: The HFRMQ items were answered on a 5 point Likert scale from 'Strongly Disagree' to 'Strongly Agree'. The closer the mean value to 5, the higher is the agreement with the particular item. N= Number; M= Mean; SE=Standard error of mean, SD= Standard deviation.